



# Oregon Nonpoint Source Pollution Program Annual Report for 2022

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# Executive Summary

Oregon's watersheds saw many water quality restoration and protection efforts from nonpoint source impacts throughout the 2022 calendar year. These efforts were made possible by the funds provided by the Federal Clean Water Act Section 319(h). These 319 funds were critical in Oregon's work to improve pesticide management and ensure the implementation of best management practices on forest, farm, and rangelands across the state while providing valuable education and data to all Oregonians.

The Oregon Nonpoint Source Pollution Program 2022 Annual Report documents activities and accomplishments of the state's Nonpoint Source Program. Oregon Department of Environmental Quality is the lead agency in administering the program; however, many program components are implemented by multiple state agencies, local governments, non-governmental organizations, and local citizens. DEQ developed the report to meet the requirements of Section 319 of the Federal Clean Water Act and the U.S. Environmental Protection Agency's 2014 Nonpoint Source Program and Grant Guidelines.

The annual report summarizes the nonpoint source activities implemented by the state during 2022 and highlights the progress Oregon is making toward meeting the challenges presented by nonpoint source impairments to water quality. Major water quality impairments include excessively warm stream temperatures, low dissolved oxygen, sedimentation, and shellfish toxins. Combined with data showing impairment to biological organisms these pollutants account for approximately 76% (2,819 out of 3,717) of known impaired waters listed in the state's most recent 2022 Integrated Report. The annual report also includes updates on milestones, implementation targets and annual reporting requirements identified in the 2022 Oregon Nonpoint Source Management Program Plan. Annual status updates ensure that Section 319 funding, technical support, and other resources are effective and efficient.

The 2022 Oregon Nonpoint Source Management Program Plan identified 48 nonpoint source program related actions or milestones scheduled to be ongoing or completed in 2022; 39 (or 81%) of the 48 actions were fully meeting scheduled milestones. There were nine (or 19%) of the actions that were not fully meeting scheduled milestones.

Actions not fully meeting scheduled milestones include:

- Updating aquatic life use designations by the target date of Dec. 31, 2022. The development process has taken longer than anticipated. DEQ plans to publish the proposed rules and use designations for public comment. The Environmental Quality Commission will consider rule adoption by November 2023. See Section 1.1 Water Quality Standards.
- The Groundwater and Surface Water Resource Guides were not updated in 2022. Due to other priorities and the planned land conservation workshops, this work will be completed by June 30, 2023. Updates will include adding information on land conservation and resources for forestry and agricultural land uses as well as checking and updating all resource links. See Section 1.5 Groundwater Protection Program.
- The North Malheur County Ground Water Management Area Committee has a milestone target to coordinate at least four times annually. The committee has not been actively meeting recently. It is anticipated following the 2023 legislative cycle that the committee will have at least one video conference to discuss on-going sampling and a potential update of the Action Plan. See Section 1.5 Groundwater Protection Program.
- Only three of five watershed projects awarded 319 funding in fiscal year 2022 began implementation within one year of when DEQ received the funds from EPA. DEQ's target is that 100% of sub-awards are obligated within one year. An extra five months were needed for the remaining three projects. The

delay was due to the time needed to finalize contract boilerplate and contract agreements. See Section 2.6 319 Grant Program.

- The updated DEQ Freshwater CyanoHABs Strategy was not finalized by the target date of Dec. 31, 2022. The strategy is expected to be finalized by June 2023. See Section 1.13 Nonpoint Source Program.
- DEQ fell short of the milestone of taking action on 100% of Total Maximum Daily Load (TMDL) implementation plans and annual reports within 12 months of receipt. Action was taken on 27 of 32 (or 84%) implementation plans and 110 of 128 (or 86%) implementation plan annual reports within 12 months of receipt. Additionally, DEQ notified or implemented appropriate action within 12 months on 204 of 263 (or 78%) Designated Management Agencies (DMAs) or responsible parties who have failed to develop and submit implementation plans or annual reports, falling short of the 100% milestone. See Section 1.3 Total Maximum Daily Load Program.

Some significant activities and actions accomplished in 2022 include:

- DEQ prepared and submitted the 2022 Integrated Report to EPA for approval in May 2022. The section 303(d) list of impaired waters, a Total Maximum Daily Load submission schedule, and supporting documentation was approved by EPA in September 2022. See Section 1.2 Monitoring and Assessment.
- In 2022, DEQ provided additional assessment information to 14 public water systems including City of Port Orford, Corbett Water District, City of Toledo, London Co-op, Canby Utility Board, Lincoln City WD, Lorde's Public Charter School, Langlois WD multiple water systems along the Santiam River (as part of the Santiam National Water Quality Initiative project). See Section 1.2 Monitoring and Assessment.
- In December 2022 DEQ completed two new nine-key element 319 Nonpoint Source Program Watershed Based Plan checklists for Luckiamute River Watershed and multiple subbasins in the Rogue River Basin. DEQ also completed and an updated and expanded checklist for the Lower Willamette Subbasin. See Section 1.6 Section 319 Grant Program.
- DEQ in conjunction with EPA and other partners held source water protection workshops that focused on assisting water systems and their communities in using land conservation tools, including acquisition and conservation easements, to build drinking water resiliency. See Section 1.4 Drinking Water Protection Program.
- In June 2022, DEQ exceeded EPA's goal of 59 percent of population served by community water systems with substantial implementation. As of June 30, 2021, the number of Oregonians served by community water systems is estimated to be 3,542,543 and the number served by community water systems that have minimized public health risks through substantial source water protection is 2,995,930. Based on our estimates, this is 85% of the community water system service population in Oregon. See Section 1.4 Drinking Water Protection Program.
- DEQ in partnership with Portland State University completed a study in 2022 on how slow-release fertilizers affect seed yield and nitrate leaching to groundwater. See Section 1.5 Groundwater Protection Program.
- New rules under the Private Forest Accord (SB1602, SB1501, SB1502, HB4055) were adopted by the Oregon Board of Forestry on October 26, 2022. See Section 1.9 Private Forestry.
- The Habitat Conservation Plan consistent with the Private Forest Accord Report was developed and submitted to the National Marine Fisheries Service and the U.S. Fish and Wildlife Service in December 2022. See Section 1.9 Private Forestry.
- In 2022, DEQ launched, and maintained an online interactive data viewer for the Pesticide Stewardship Partnership Program. This supports both internal and external partners in their decision making and communication throughout the program. Additionally, DEQ provided specific data analysis and presentations to PSP partners across the state as well as Water Quality Pesticide Management Team members and Oregon Department of Agriculture. DEQ also assisted in the development of the 2022 PSP Biennial Report and the coordination of seven waste collection events which resulted in the collection and disposal of 64,329 pounds of pesticides from 117 participants. See Section 1.12 Water Quality Pesticide Management Team.
- Throughout 2022, DEQ's water quality division has increased its focus on environmental justice across programs and continues to work towards identifying ways to improve its capacity to incorporate

environmental justice principles into all its work. Currently DEQ is doing foundational work to provide information on water quality environmental burden to support a statewide environmental justice mapping effort. This effort is part of a larger cross media and cross agency effort to provide the much-needed resources and tools to support environmental justice work in Oregon.

In 2022, Oregon remained committed to its work to restore and protect hydrologic systems from nonpoint source pollution while addressing the unique challenges of a global pandemic, severe wildfires, and climate change. DEQ continues this commitment by seeking innovation and cooperation where possible and supporting community-based methods to achieve program goals. To ensure the success of these efforts DEQ continues to develop and maintain its essential relationships and engagement with tribal nations and local and state partners on water quality protection, restoration, implementation of TMDLs and monitoring of Oregon's waters. This collaboration allows the state to reach program goals by identifying emerging issues, understanding water quality status and trends and informing management activities that will restore water quality and beneficial uses to water bodies across Oregon.

# Table of Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>1 Introduction .....</b>	<b>8</b>
<b>2 Nonpoint Source activities and accomplishments in 2022 .....</b>	<b>9</b>
2.1 Water Quality Standards.....	9
2.2 Monitoring and assessment.....	10
2.3 Total Maximum Daily Load Program.....	10
2.4 Drinking Water Protection.....	17
2.5 Groundwater Protection Program .....	26
2.6 Section 319 Grant Program .....	31
2.7 Clean Water State Revolving Fund.....	38
2.8 Agriculture water quality .....	39
2.9 Private forestry .....	43
2.10 Oregon Watershed Enhancement Board .....	45
2.11 Toxics reduction strategy.....	46
2.12 Water Quality Pesticide Management Team.....	47
2.13 Nonpoint Source Program .....	50
2.14 Environmental justice efforts.....	52

## List of Tables

Table 1: Milestone status for WQS-01-M1 .....	9
Table 2: Milestone status for WQA-01-M1 .....	10
Table 3: Milestone status for TMDL-01-M1.....	11
Table 4: Summary of high priority TMDLs in development .....	11
Table 5: Milestone status for TMDL-03-M1.....	12
Table 6: Milestone status for TMDL-04-M1.....	13
Table 7: Milestone status for TMDL-05-M1.....	13
Table 8: Milestone status for TMDL-06-M1.....	14
Table 9: Milestone status for TMDL-07-M1.....	15
Table 10: Milestone status for TMDL-08-M1.....	15
Table 11: Milestone status for TMDL-09-M1.....	16
Table 12: Milestone status for TMDL-10-M1.....	17
Table 13: Milestone status for DWP-01-M1 .....	18
Table 14: Milestone status for DWP-02-M1 .....	18
Table 15: Milestone status for DWP-03-M1 .....	19
Table 16: Milestone status for DWP-04-M1 .....	19
Table 17: Milestone status for DWP-05-M1 .....	20
Table 18: Milestone status for DWP-06-M1 .....	21

Table 19: Milestone status for DWP-06-M2 .....	22
Table 20: Milestone status for DWP-06-M3 .....	23
Table 21: Milestone status for DWP-07-M1 .....	23
Table 22: Milestone status for DWP-08-M1 .....	24
Table 23: Milestone status for DWP-09-M1 .....	24
Table 24: Milestone status for DWP-09-M2 .....	25
Table 25: Milestone status for DWP-09-M3 .....	26
Table 26: Milestone status for GW-01-M1 .....	27
Table 27: Milestone status for GW-02-M1 .....	27
Table 28: Milestone status for GW-03-M1 .....	28
Table 29: Milestone status for GW-04-M1 .....	28
Table 30: Milestone status for GW-06-M1 .....	28
Table 31: Milestone status for GW-07-M2 .....	29
Table 32: Milestone status for GW-08-M1 .....	29
Table 33: Milestone status for GW-09-M1 .....	29
Table 34: Milestone status for GW-10-M1 .....	30
Table 35: Milestone status for GW-11-M1 .....	30
Table 36: Milestone status for GW-12-M1 .....	31
Table 37: Milestone status for GW-13-M1 .....	31
Table 38: Milestone status for 319-1-M1 .....	32
Table 39: Milestone status for 319-2-M1 .....	33
Table 40: Milestone status for 319-2-M2 .....	33
Table 41: Milestone status for 319-3-M1 .....	34
Table 42: Milestone status for 319-4-M1 .....	34
Table 43: Milestone status for 319-5-M1 .....	35
Table 44: Milestone status for 319-5-M2 .....	35
Table 45: Milestone status for 319-6-M1 .....	36
Table 46: Milestone status for 319-6-M2 .....	36
Table 47: Milestone status for 319-7-M1 .....	36
Table 48: Milestone status for 319-8-M1 .....	37
Table 49: Summary of 319 funded activities by FTE .....	38
Table 50: Milestone status for CWSRF-1-M1 .....	38
Table 51: Summary of new nonpoint source projects funded using CWSRF dollars .....	39
Table 52: Milestone status for AG-02-M1 .....	40
Table 53: Summary of Agricultural Water Quality Management Areas with lite and full review in reporting period .....	40
Table 54: Milestone status for AG-03-M1 .....	41
Table 55: Summary of SIAs with monitoring proposals approved by the MAG in 2021 and 2022 .....	42
Table 56: Milestone status for AG-06-M1 .....	42
Table 57: Milestone status for PF-01-M1 .....	43
Table 58: Milestone status for PF-02-M1 .....	43
Table 59: Milestone status for PF-03-M1 .....	44
Table 60: Milestone status for PF-04-M1 .....	44
Table 61: Milestone status for PF-05-M1 .....	45
Table 62: Milestone status for OWEB-01-M1 .....	46
Table 63: Milestone status for TRS-02-M1 .....	47
Table 64: Milestone status for PSP-01-M1 .....	47
Table 65: Milestone status for PSP-02-M1 .....	48
Table 66: Milestone status for PSP-03-M1 .....	48
Table 67: Milestone status for PSP-04-M1 .....	49
Table 68: Milestone status for NPS-02-M1 .....	50
Table 69: Milestone status for NPS-03-M1 .....	50
Table 70: Milestone status for NPS-05-M1 .....	51
Table 71: Milestone status for NPS-06-M1 .....	51

# Introduction

This Oregon Nonpoint Source Pollution Program 2022 Annual Report meets the requirements of Section 319 of the Federal Clean Water Act, now incorporated under Title 33 Section 1329(b) of the U.S. Code. This law requires each state to create a management program plan for controlling water quality pollution from nonpoint sources. The 2022 Oregon Nonpoint Source Management Plan (2022 Plan) covers a five-year timeframe from Jan, 1, 2022 to Dec. 31, 2026 and provides descriptions and primary activities of each nonpoint source program in detail. The 2022 plan can be found on [DEQ's Nonpoint source web page](#).

The long-term goal of Oregon's Nonpoint Source Management Program is:

*For all waterbodies and groundwater within Oregon, to attain and maintain water quality standards and designated beneficial uses in partnership with communities using a watershed-based adaptive management program.*

This is accomplished through the protection and improvement of Oregon's water quality, ensuring that nonpoint sources of pollution do not contribute to impairment of Oregon's beneficial uses and water quality standards. To achieve this long-term goal, Oregon must be strategic, set priorities, and administer programs that have clear objectives and specific actions. Oregon's goal cannot be achieved overnight and has proven to be a multigenerational task. The 2022 Plan provides focus and direction to the program through identification of current and planned goals, priorities, actions and timeframe milestones.

One of the requirements identified in the 2022 plan is the development of this Nonpoint Source Annual Report. The annual report is submitted to the U.S. Environmental Protection Agency. Its purpose is to document the progress made toward the 2022 plan's goals and objectives. This annual report identifies the activities and accomplishments Oregon has made over calendar year 2022. The summary includes the progress towards implementing the actions or milestones identified in the 2022 Oregon Nonpoint Source Management Program Plan.

Oregon Department of Environmental Quality is the lead agency in developing the report however some of the actions may have been implemented by multiple state agencies, local governments, non-governmental organizations, and local citizens.

Chapter 2 contains each program's goals and objectives as defined by the 2022 plan, a summary of the actions and milestones scheduled to occur or be completed in 2022, and the status in meeting the milestones.



# Nonpoint Source activities and accomplishments in 2022

Actions in the 2022 Plan are crafted to be completed over the next five years. They define the incremental steps each program will take towards meeting program objectives and over time attain the long-term goal. Actions are specific, measurable, achievable, realistic, and time-bound (SMART). SMART actions provide a way to evaluate and measure success allowing the public, state agencies, and EPA to determine if Oregon is making progress implementing the nonpoint source management program. Each set of objectives, actions, and milestones are organized by program or program area.

The goals and priorities outlined in the 2022 plan address a broad spectrum of activities ranging from Section 319 grant administration, TMDL development and implementation, to working with partners in various land use sectors such as urban, forestry and agriculture. This Nonpoint Source Program Annual Report provides the basis for tracking annual progress under the 2022 Plan. The following sections describe the nonpoint source activities and reported outputs for program actions identified in the 2022 Plan as having reporting requirements for the year 2022.

## 1.1 Water Quality Standards

**Program Goal:** Protection of designated beneficial uses in waters of the state through the establishment of water quality standards and rules.

**Objective 1:** Implement triennial review work plan priorities to update water quality standards.

DEQ has identified one program milestone to be complete and reported in the 2022 NPS Annual Report. This milestone was not complete as of Jan 1, 2022.

**Table 1: Milestone status for WQS-01-M1**

Actions	Milestones	Status
WQS-01. Update the Aquatic Life Use Designations	WQS-01-M1. Updated Aquatic Life Use designations by December 31, 2022.	Not Meeting Milestone  Expected completion date: 11/2023

### WQS-01-M1 Description of action/milestone status

It has taken longer than expected to compile data, put the data into usable Geographical Information System data bases and maps, incorporate updates from Oregon Department of Fish and Wildlife and develop the needed Use Attainability Analysis documentation required by EPA. The next steps are to publish the proposed rules and use designations for public comment and respond to EPA comments on the analysis document.

**WQS-01-R1.** Date the use designations were adopted by EQC. Reported in 2022 annual report.

DEQ expects the rule to be proposed to the EQC for adoption in September or November 2023. This metric will be reported in the 2023 annual report.

**WQS-01-R2.** Summary description of the updates. Reported in 2022 annual report.

A summary description of the final updates will be reported in the 2023 annual report.

## 1.2 Monitoring and assessment

**Program Goal:** Assessment of Oregon's surface waters. Oregon Nonpoint Source Management Program Plan 60

**Objective 2:** On-time development and submittal of Oregon's biennial 305(b)/303(d) Integrated Report to EPA

DEQ has identified one program milestone to be completed and reported on in the 2022 NPS Annual Report. This milestone was completed in April 2022.

**Table 2: Milestone status for WQA-01-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
WQA-01/PPA-1.10. Prepare and submit the 2022 Integrated Report to EPA.	WQA-01-M1. Final 2022 Integrated Report submitted to EPA by April 1, 2022.	Meeting Milestone  Completion date: 5/2022

### WQA-01-M1 Description of action/milestone status

**WQA-01-R1.** Date 2022 Integrated Report is submitted to EPA for approval. Reported in 2022 annual report.

The 2022 Integrated Report was submitted to EPA for approval on May 23, 2022. EPA approved the section 303(d) list of impaired waters, a Total Maximum Daily Load (TMDL) submission schedule, and the associated supporting documentation and information on 09/01/2022.

## 1.3 Total Maximum Daily Load Program

**Program Goal:** Attain and maintain water quality standards by controlling pollution from point and nonpoint sources.

**Objective 3:** DEQ develops Total Maximum Daily Loads and Water Quality Management Plans for priority impaired waters.

**Objective 4:** DMA or responsible persons develop TMDL implementation plans.

**Objective 5:** DMA or responsible persons are implementing their TMDL implementation plan.

**Objective 6:** Management strategies are being implemented to reduce and control nonpoint sources where TMDL or other watershed-based plans have been developed.

**Objective 7:** DEQ and partners evaluate progress implementing TMDLs through landscape and water quality response monitoring.

**Objective 8:** DEQ understands, summarizes, and reports on the status of TMDL implementation.

**Table 3: Milestone status for TMDL-01-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-01. DEQ issues Total Maximum Daily Loads to EPA.	TMDL-01-M1. DEQ has issued to EPA TMDLs addressing a minimum of 483 water quality limited segments by December 31, 2024.	In Progress Expected completion date: 12/31/2024

## **TMDL-01-M1 Description of action/milestone status**

DEQ did not submit any new TMDLs to EPA in 2022. Table 4 below summarizes high priority TMDLs currently in development and the number of impaired category 5 assessment units identified on the 2022 Integrated Report as needing TMDLs for those pollutants.

**Table 4: Summary of high priority TMDLs in development**

<b>TMDL Project</b>	<b>Pollutants Addressed</b>	<b>Count of Impaired Category 5 Assessment Units Addressed</b>	<b>Count of other Assessment Units Addressed</b>
Coquille Subbasin	Dissolved Oxygen, E. coli, Fecal Coliform, pH, Temperature	87	571
Lower Columbia-Sandy Subbasin	Temperature	36	22
Powder, Burnt, and Brownlee Subbasins	E. coli, Fecal Coliform	7	397
Upper Yaquina	Dissolved Oxygen, E. coli, Fecal Coliform	6	21
Willamette Subbasins	Temperature	332	556

**TMDL-01-R1.** Summary of TMDLs submitted to EPA during the reporting period including name of the TMDLs, water quality limited parameter/s addressed, and associated pollutant/s. Reported annually.

DEQ did not submit any new TMDLs to EPA in 2022.

**TMDL-01-R2.** Number of water quality limited segments addressed by TMDLs submitted to EPA during the reporting period. Reported annually.

**TMDL-01-R3.** Cumulative number of water quality limited segments addressed by TMDLs submitted to EPA between Jan. 1, 2022, and Dec. 31, 2026. Reported annually.

**Table 5: Milestone status for TMDL-03-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-03. DEQ receives, reviews, and takes action on TMDL implementation plans.	TMDL-03-M1. DEQ takes action on 100% of TMDL implementation plans within 12 months of receipt.	Not Meeting Milestone  DEQ took action on 84% (27 of 32) TMDL implementation plans submitted during the previous calendar year.

## **TMDL-03-M1 Description of action/milestone status**

**TMDL-03-R1.** Percent of TMDL implementation plans submitted during the previous calendar year that DEQ has taken action on. Reported annually.

In 2022, DEQ took action on 84% (27 of 32) TMDL implementation plans submitted during the previous calendar year.

**TMDL-03-R2.** Number of DMAs or responsible persons required to submit a new or revised TMDL implementation plan. Reported annually.

There are 263 DMAs with requirements to submit a TMDL implementation plan.

**TMDL-03-R3.** Number of DMAs or responsible persons that have submitted TMDL implementation plans by January 1 of the previous calendar year. Reported annually.

32 DMAs submitted TMDL implementation plans in calendar year 2022. DEQ has received 166 DMA TMDL implementation plans prior to Jan. 1, 2021.

**TMDL-03-R4.** Number of TMDL implementation plans that DEQ has acted on during the previous calendar year. Reported annually.

In 2022, DEQ acted on 27 of the TMDL implementation plans submitted within the previous year.

**Table 6: Milestone status for TMDL-04-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-04. DEQ has reviewed for sufficiency, commented on, or taken other appropriate action on submitted TMDL implementation plan annual reports.	TMDL-04-M1. DEQ has taken action on 100% of implementation plan annual reports that were submitted to DEQ during the previous calendar year.	Not Meeting Milestone  DEQ took action on 86% (110 of 128) of TMDL implementation plan annual reports submitted

## **TMDL-04-M1 Description of action/milestone status**

**TMDL-04-R1.** Percent of TMDL implementation plan annual reports submitted during the previous calendar year that DEQ has acted on. Reported annually.

In 2022, DEQ acted on 86% (110 of 128) of TMDL implementation plan annual reports submitted during the previous calendar year.

**TMDL-04-R2.** Number of DMAs or responsible persons that are required to submit a TMDL implementation plan annual report to DEQ. Reported annually.

There are 203 DMAs required to submit TMDL implementation plan annual reports.

**TMDL-04-R3.** Number of annual reports submitted to DEQ before Jan. 1 of the previous calendar year. Reported annually.

128 DMAs submitted TMDL implementation plan annual reports within the previous calendar year.

**TMDL-04-R4.** Number of annual reports submitted to DEQ before Jan. 1 of the previous calendar year that DEQ has acted on. Reported annually.

DEQ took action on 110 TMDL implementation plan annual reports in calendar year 2022.

**Table 7: Milestone status for TMDL-05-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-05. DEQ formally notifies each DMA or responsible persons of the TMDL and WQMP* requirements and follows up with appropriate action (e.g. technical assistance, warning letter, or enforcement notice).	TMDL-05-M1. DEQ has notified and implemented any appropriate actions to 100% of DMAs or responsible persons who have not submitted or have failed to develop and submit TMDL implementation plans or annual reports as required under an approved TMDL WQMP* from the previous calendar year.	Not Meeting Milestone  DEQ notified or implemented appropriate action for 78% (204 of 263) of DMAs or responsible persons in relation to their TMDL and WQMP requirements.

\*WQMP – Water Quality Management Plan

## TMDL-05-M1 Description of action/milestone status

**TMDL-05-R1.** Percent of DMAs or responsible persons that DEQ has notified or implemented any appropriate actions. Reported annually.

DEQ notified or implemented appropriate action for 79% (102 of 129) of DMAs or responsible persons in relation to their TMDL and WQMP requirements.

**TMDL-05-R2.** Number of DMAs or responsible persons that have been notified via letter or email of the TMDL and WQMP requirements. Reported annually.

DEQ has notified 99 DMAs or responsible persons of their TMDL and WQMP requirements via letter or email.

**TMDL-05-R3.** Number of DMAs or responsible persons that DEQ has implemented appropriate actions using the following categories: Technical assistance provided, warning letter sent, enforcement action taken. Reported annually.

DEQ has provided technical assistance, sent warning letters, or taken enforcement action on 67 DMAs or responsible persons.

**Table 8: Milestone status for TMDL-06-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-06. Riparian areas are restored or enhanced.	TMDL-06-M1. Over a five-year period 200 riparian stream miles within watersheds where temperature TMDLs have been developed have riparian tree planting projects completed.	In Progress  Expected Completion Dec. 31, 2026

## TMDL-06-M1 Description of action/milestone status

**TMDL-06-R1.** The total length of riparian stream miles and number of acres with completed tree planting restoration projects completed in HUC8 subbasins with approved TMDLs as reported in Oregon Watershed Restoration Inventory and Natural Resource Conservation Service for the most recent annual period when data is available. Reported annually.

In calendar year 2021 there were 7.97 stream miles and 68.68 acres of completed tree planting restoration projects in HUC8 subbasins with approved TMDLs as reported in the Oregon Watershed Restoration Inventory. NRCS data was not available and thus not included.

**TMDL-06-R2.** Cumulative number of riparian stream miles and number of acres with completed tree planting restoration projects in HUC8 subbasins with approved TMDLs as reported in OWRI and NRCS between Jan. 1, 2022 and Dec. 31, 2026. Reported annually.

In calendar year 2022 there were 9.5 stream miles and 80 acres of completed tree planting restoration projects completed in HUC8 subbasins with approved TMDLs as reported in the Oregon Watershed Restoration Inventory. NRCS data was not available and thus not included.

**Table 9: Milestone status for TMDL-07-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-07. Other appropriate management strategies are implemented to reduce pollutant loading.	TMDL-07-M1. Annually DEQ quantifies the count or amount of management strategies that have been completed within watersheds where TMDLs have been developed.	Meeting Milestone

## **TMDL-07-M1 Description of action/milestone status**

**TMDL-07-R1.** The annual count or amount of management strategies implemented for each HUC8 subbasins with approved TMDLs. Reported annually.

See Appendix A of this report.

**Table 10: Milestone status for TMDL-08-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-08. Develop TMDL monitoring plans.	TMDL-08-M1. A minimum of five TMDL monitoring plans developed by Dec. 31, 2026.	In Progress  One developed in 2022.

## **TMDL-08-M1 Description of action/milestone status**

**TMDL-08-R1.** Number and identification of TMDL monitoring plans approved by the Healthy Stream Partnership Implementation Group and the Monitoring and Assessment Governance Committee in the previous calendar year. Reported annually.

DEQ developed one TMDL monitoring plan in 2022 that was approved for implementation by DEQ's assessment committee. The committee is a group of DEQ water quality managers tasked with decisions regarding the prioritization and allocation of DEQ laboratory and water quality program resources, particularly as it relates to water quality monitoring.

**South Umpqua River bacteria assessment.** Approved for implementation. DEQ issued a TMDL addressing bacteria in the Umpqua Basin in 2006. Bacteria data collected on the South Umpqua River and assessed in Oregon's 2022 Integrated Report found two assessment units covering the South Umpqua River from the confluence of Cow Creek (river mile 46.4) to the confluence with the North Umpqua, approximately 50 miles, now meet the single sample E. coli bacteria standard. The two assessment units were delisted and placed into category 2. The new monitoring plan focus additional bacteria monitoring in these reaches to evaluate if bacteria concentrations continue to improve and maintain the attainment status. If water quality continues to demonstrate attainment, DEQ will evaluate if the delisting meets the Non-Point Source success story guidance and use this data to develop an EPA NPS Success Story.

**Table 11: Milestone status for TMDL-09-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-09. Implementation of TMDL monitoring plans.	TMDL-09-M1. A minimum of five TMDL monitoring plans implemented by December 31, 2026.	In Progress.  Four implemented in 2022.

## **TMDL-09-M1 Description of action/milestone status**

**TMDL-09-R1.** Name and number of TMDL monitoring plans implemented. Reported annually.

DEQ staff implemented four TMDL monitoring plans in 2022. The four plans include:

- **North Coast TMDLs Temperature Effectiveness Monitoring.** In 2022, DEQ collected continuous temperature data at 19 sites in the North Coast in support of a temperature TMDL effectiveness monitoring program to evaluate status and trends in the North Coast Subbasins where temperature TMDLs have been developed. Three temperature TMDLs have been developed in the North Coast (2001 Tillamook Bay Watershed TMDL, 2002 Nestucca Bay Watershed TMDL, and 2003 North Coast Subbasins TMDL). Temperature data began being collected in 2006 for the Tillamook Bay and expanded to include the Necanicum Watershed in 2012. Nehalem and Nestucca watersheds were included beginning in 2009. A significant amount of restoration projects has been implemented since these TMDLs were developed. The current monitoring plan was developed in 2016 to continue the temperature TMDL effectiveness monitoring program and evaluate status and trends as the restoration projects age. The monitoring is expected to continue through 2029.
- **Upper Klamath and Lost Subbasins Temperature TMDL Status and Trend monitoring.** In 2022, DEQ collected continuous temperature data at 33 sites in the Upper Klamath and Lost Subbasins. The monitoring supports the TMDL implementation monitoring strategy developed as part of the TMDL process.
- **Upper Klamath Lake Agricultural Water Quality Monitoring Plan.** In 2022, DEQ completed six sampling events to collect nutrient water quality data at various locations around Upper Klamath Lake. The monitoring is being completed in partnership with ODA. ODA and DEQ are using the data to characterize nutrient levels in the water being diverted and pumped back into Upper Klamath Lake from agricultural properties, the nutrient levels from upslope sources, the amount of phosphorus in solution versus sediment bound, and progress towards meeting nutrient load allocations from the Upper Klamath Lake TMDL.
- **Dairy and McKay Creeks CEP monitoring.** In 2022, DEQ collected total phosphorus, E. coli, temperature, dissolved oxygen, specific conductance, pH, and turbidity samples at eight sites in the Dairy and McKay Creek Watersheds (Tualatin Subbasin). The monitoring project is designed to capture the status and trends of parameters addressed by the Tualatin Subbasin TMDLs. The sample locations were chosen to demonstrate landscape scale conditions at the 6th field HUC level. Staff from DEQ, Tualatin Soil and Water Conservation District and others selected integrator sites to target the upper and lower ends of West Fork Dairy, East Fork Dairy, McKay and Dairy Creeks. The upper



sites on each creek are not expected to be significantly impacted by agricultural conservation actions. Lower sites on the forks were selected to integrate agricultural and other conservations actions. The sampling is expected to last for 10 years.

**Table 12: Milestone status for TMDL-10-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TMDL-10. DEQ will complete five year TMDL implementation reports summarizing TMDL implementation actions, if those actions are meeting WQMP or TMDL implementation plan requirements and milestones, other relevant information, and recommendations for next steps.	TMDL-10-M1. DEQ completes a five year TMDL implementation report at least once between January 1, 2022 and December 31, 2026 for the following TMDLs: Bear Creek Watershed, Rogue River Basin, Walla Walla Subbasin	In Progress  Expected completion date: 2025

## **TMDL-10-M1 Description of action/milestone status**

### **Bear Creek and Rogue River**

Implementation actions are collected from DMA's annually and will be summarized in 2025.

### **Walla Walla Basin**

DEQ plans to conduct specific outreach to those who have not submitted DEQ ordered implementation plans and interview them to ascertain actions taken so far that meet TMDL goals and objectives. This would enable an estimated fulfillment of this objective in February 2024.

**TMDL-10-R2.** Narrative overview of report findings. Reported annually.

No report findings at this point

## **1.4 Drinking Water Protection**

**Program Goal:** Reduce risk of contamination, minimize cost of treatment, and reduce risk of local health impacts from contaminants that cannot be removed through standard treatment by reducing pollution from point and nonpoint sources into public water supply sources.

**Objective 9:** DEQ provides information to public water systems and their communities on sources of drinking water and identifies potential point and non-point source risks within the source area.

**Objective 10:** DEQ provides readily accessible information to public water systems and their communities on the source water assessments and actions they can take to protect drinking water.

**Objective 11:** Community water systems implement source water protection actions.

**Table 13: Milestone status for DWP-01-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-01. DEQ will assist Oregon Health Authority in completing “Updated Source Water Assessments” for Community and Non-transient Non-community water systems using groundwater.	DWP-01-M1. Provide OHA* maps and potential contaminant source inventory data input for the remaining 100 Updated Source Water Assessments for Community and Non-transient Non-community water systems using groundwater bringing the total to 500 completed in Oregon by Dec. 31, 2026.	In Progress  Expected completion date: 12/31/2026

\*OHA – Oregon Health Authority

## **DWP-01-M1 Description of action/milestone status**

This is an ongoing task to assist OHA by maintaining/updating tools that allow OHA to produce updated source water assessment reports.

**DWP-01-R1.** Number of groundwater systems where updated source water assessment maps and data are drafted for OHA for during the reporting period. Reported annually.

No new maps or data was provided because OHA was able to complete the work in house and did not request maps or data. DEQ supported OHA by maintaining updated GIS layers for drinking water sources and maintaining potential contaminant source identification and editing tool.

**DWP-01-R2.** Total number of completed updated source water assessments in Oregon. Reported annually.

OHA and DEQ reported annually to EPA on this measure for the period of July 1-June 30. As of June 30, 2022, 671 Source Water Assessment updates have been completed representing approximately 70% of the 954 community and non-transient non-community groundwater systems that are to receive an update. OHA completed 153 SWA updates for groundwater community and non-transient non-community systems between July 1, 2021, and June 30, 2022.

**Table 14: Milestone status for DWP-02-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-02. DEQ will complete Updated Source Water Assessments for any new Community and Non-transient Non-community surface water systems. (Note that USWAs for all 168 existing Oregon surface water systems were complete as of August 2019).	DWP-02-M1. Complete updated reports for 100% of Community and Non-transient Non-community surface water systems by Dec. 31, 2026.	In Progress  Expected completion date: Dec. 31, 2026

## DWP-02-M1 Description of action/milestone status

This is an ongoing task to complete source water assessments for new or revised drinking water sources.

**DWP-02-R1.** Number of completed updated source water assessments for surface water systems during the reporting period. Reported annually.

In 2022, no new source water assessments were completed. However, DEQ catalogued water systems that need a new or revised source water assessment and are prioritizing new assessments for completion in 2023. There are six new public water systems using surface water sources that need a source water assessment. There are six existing water systems with new or revised drinking water sources where an update is needed.

**DWP-02-R2.** Total number of surface water systems requiring an updated source water assessment. Reported annually.

There are 174 community and non-transient non-community surface water systems that require an updated source water assessment. Updated assessments have been completed for 168 of these water systems.

**Table 15: Milestone status for DWP-03-M1**

Actions	Milestones	Status
DWP-03. DEQ will provide additional information and updates to both groundwater and surface water public water systems upon request.	DWP-03-M1. Groundwater and surface water public water systems requests completed.	Meeting Milestone Completion date: 2022

## DWP-03-M1 Description of action/milestone status

This is an ongoing task and is completed at the water systems request. The total number of water systems provided additional assessment information is reported each year.

**DWP-03-R1.** Number of public water systems provided additional assessment information. Reported annually.

In 2022, DEQ provided additional assessment information to 14 public water systems including City of Port Orford, Corbett Water District, City of Toledo, London Co-op, Canby Utility Board, Lincoln City WD, Lorde's Public Charter School, Langlois Water District, and multiple water systems along the Santiam River (as part of the Santiam NWQI project).

**Table 16: Milestone status for DWP-04-M1**

Actions	Milestones	Status
DWP-04. DEQ will maintain DWP website that provides public access to multiple data sources on drinking water source area assessments, maps and data, information on source protection, and available funding.	DWP-04-M1. Completion of annual website review.	Meeting Milestone Completion date: 2022

## DWP-04-M1 Description of action/milestone status

This is an ongoing task completed at as needed and at various times throughout each year. Tasks completed for 2022 are detailed below.

**DWP-04-R1.** Narrative description of updated website content. Reported annually.

Tasks completed in 2022:

- Updated GIS Layers for drinking water source areas and potential contaminant sources.
- Conducted comprehensive Quality Control and update for broken links and outdated public facing documents
- Added new page for Land Conservation Workshop materials including agenda, presentation, meeting notes, breakout session notes, and resources.
- Maintained updated program contact information.

**Table 17: Milestone status for DWP-05-M1**

Actions	Milestones	Status
DWP-05. DEQ will review and update the Groundwater and Surface Water Resource Guides to identify additional measures to control nonpoint pollution, focusing on those measures that will be most effective in supporting drinking water as a beneficial use.	DWP-05-M1. Completion of Resource Guide update every two years by June 30 2022, 2024, and 2026.	Not Meeting Milestone  Expected completion date: 12/2023

## DWP-05-M1 Description of action/milestone status

Due to other priorities and the planned land conservation workshops, the Resource Guides were not updated in 2022. This work will be completed by June 30, 2023. Update will include adding information on land conservation and resources for forestry and agricultural land uses as well as checking and updating all resource links.

**DWP-05-R1.** Date Resource Guide was updated. Reported in 2022, 2024, and 2026 annual reports.

Due to other priorities, the resource guides were not updated in 2022. This work will be completed by Dec. 31, 2023.

**DWP-05-R2.** Narrative description of updates completed. Reported in 2022, 2024, and 2026 annual reports.

Due to other priorities, the resource guides were not updated in 2022. This work will be completed by Dec. 31, 2023.

**Table 18: Milestone status for DWP-06-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-06. In partnership with lead funders (OHA, DWPP) solicit and select DWSRF and DWPP grant projects that support priorities. DEQ will promote the use of the grants and loans for addressing nonpoint sources of pollution within drinking water areas. Grant and loan programs include the Drinking Water Source Protection Fund (DWSRF set asides); Drinking Water Providers Partnership (DWPP) (with USFS*, BLM**, EPA, and NGOs***); NPS 319 grant funding where there is a drinking water nexus and a relevant watershed-based plan or TMDL; NRCS National Water Quality Initiative Source Water Protection projects; and Clean Water State Revolving Fund (CWSRF).	DWP-06-M1. Annual participation in project development and selection for DW SPF, DWPP, and 319 NPS grants.	Meeting Milestone  Completion date: 2022

\*USFS – US Forest Service

\*\*BLM – Bureau of Land Management

\*\*\* Non-governmental Organizations

## **DWP-06-M1 Description of action/milestone status**

This is an ongoing task completed each year. Tasks completed for 2022 are detailed below.

**DWP-06-R1.** Date of participation and narrative description of projects selected for funding. Reported annually.

Drinking Water Source Protection Fund (January – July 2022): DEQ conducts outreach and provides technical assistance to potential grant applicants. Applications for 2022 were due March 2022. OHA and DEQ reviewed nine Letters of Interest for the fund and recommended five of these for a total funding request of \$235,300. Projects funded address planning for drinking water protection, watershed acquisition and watershed management; spill prevention and response planning; riparian restoration and bank stabilization.

Drinking Water Providers Partnership (January 2022): This is a collaboration of U.S. Forest Service, Bureau of Land Management, EPA, DEQ, Washington Department of Health and several non-profits that coordinate this competitive grant solicitation for habitat conservation and restoration projects in drinking water source areas. In January 2022 the partnership completed project selection for their seventh year as a regional partnership. A total of \$268,000 was awarded in Oregon by the federal partners supporting six projects in drinking water source areas for habitat and riparian area restoration, invasive species removal, placement of large instream wood complexes, re-establishing off-channel habitat, culvert replacements and partnership coordination for the North Santiam Council of Water Leaders. The funded projects will benefit the drinking water and aquatic habitat in watersheds providing source water for several small communities and larger cities. Two projects (one for full funding and one for half funding) were referred to the Drinking Water Source Protection Fund.

NPS 319 (January – December 2022): DEQ continued administration of Partnership for Umpqua Rivers turbidity monitoring and assessment 319 grant in the Umpqua Basin above drinking water intakes.

NRCS NWQI (January – December 2022) DEQ is continuing to provide technical assistance to local partners that have watershed assessment grants from NRCS's NWQI. The following projects are active: Molalla, Clackamas, Rogue Basin project, Myrtle Point/Coquille, South Umpqua/Olalla Lookingglass, Siletz, Santiam, and Monroe.

**Table 19: Milestone status for DWP-06-M2**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-06. In partnership with lead funders (OHA, DWPP) solicit and select DWSRF and DWPP grant projects that support priorities. DEQ will promote the use of the grants and loans for addressing nonpoint sources of pollution within drinking water areas. Grant and loan programs include the Drinking Water Source Protection Fund (DWSRF set-asides); Drinking Water Providers Partnership (with USFS, BLM, EPA, and NGOs); NPS 319 grant funding where there is a drinking water nexus and a relevant watershed-based plan or TMDL; NRCS National Water Quality Initiative Source Water Protection projects; and Clean Water State Revolving Fund (CWSRF).	DWP-06-M2. Annual coordination with NRCS to identify potential planning and implementation projects.	Meeting Milestone  Completion date: 06/2022

## **DWP-06-M2 Description of action/milestone status**

This is an ongoing task completed each year. Tasks completed for 2022 are detailed below.

**DWP-06-R2** Date of participation and narrative description of projects supported for funding. Reported annually.

June 2022 – coordinated with Oregon NRCS on National Water Quality Initiative projects. Evaluated potential areas for planning projects but decided there was not enough local producer or partner interest to submit new projects. Focused on moving existing planning projects to implementation. Supported withdrawal of two projects due to low producer participation in the respective area.

**Table 20: Milestone status for DWP-06-M3**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-06. In partnership with lead funders (OHA, DWPP) solicit and select DWSRF and DWPP grant projects that support priorities. DEQ will promote the use of the grants and loans for addressing nonpoint sources of pollution within drinking water areas. Grant and loan programs include the Drinking Water Source Protection Fund (DWSRF set asides); Drinking Water Providers Partnership (with USFS, BLM, EPA, and NGOs); NPS 319 grant funding where there is a drinking water nexus and a relevant watershed-based plan or TMDL; NRCS National Water Quality Initiative Source Water Protection projects; and Clean Water State Revolving Fund (CWSRF).	DWP-06-M3. Review and support eligible nonpoint source activity funding applications for Clean Water State Revolving Fund (CWSRF) source water protection projects	Meeting Milestone  Completion date: 12/2022

## **DWP-06-M3 Description of action/milestone status**

This is an ongoing task completed upon request by public water systems or other partners.

**DWP-06-R3.** Date of review and narrative summary of funding recommendations. Reported annually.

July – December 2022: DEQ has been supporting the City of Port Orford as they apply for Clean Water State Revolving Fund to purchase property in their drinking water source area. Support included assistance with application materials, providing additional susceptibility analysis of properties, review of Forest Management Plan and Invasives Management Plan, and coordination with DEQ's loan officers. Port Orford's application was submitted December 2022. Review of the management plans indicates the proposed land acquisition and associated planned management of those lands meets DEQ's Nonpoint Source Management Plan goals.

**Table 21: Milestone status for DWP-07-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-07 Create one or more watershed-based plans (which may include TMDLs) for watersheds serving as drinking water source areas in the North Coast or Mid Coast.	DWP-07-M1. Select at least one watershed for planning and enlist Public Water System interest and cooperation by December 2022.	Meeting Milestone  Completion date: 12/2022

## **DWP-07-M1 Description of action/milestone status**

This task is complete for the 2022-2026 Oregon Nonpoint Source Management Program Plan. Additional areas may be identified for completion in the future but are not planned at this time.

**DWP-07-R1.** Annual update on status of watershed-based plan completion for nonpoint source pollution-centered drinking water protection. Reported annually.

December 2022 - Completed 9-key element 319 Nonpoint Source Program Watershed Based Plan checklist for the Molalla Subbasin that will allow local partners including Cities of Canby, Molalla and Colton to apply for 319 grant funds

**Table 22: Milestone status for DWP-08-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-08. Conduct outreach to Public Water Systems interested in local land acquisition and management strategies	DWP-08-M1. Provide information to 20 public water systems on opportunities for grants and funds for property acquisition or development of conservation easements within their source area.	Meeting Milestone  Completion date: 12/2022

## **DWP-08-M1 Description of action/milestone status**

This task is complete for the 2022-2026 Oregon Nonpoint Source Management Program Plan. However, we consider this activity a high priority for drinking water protection and additional outreach will occur in subsequent years.

**DWP-08-R1.** Number of water systems contacted and number of water systems pursuing land acquisition or conservation. Reported annually.

November 2022: DEQ in conjunction with EPA and other partners completed two source water protection workshops on November 1st and 3rd focused on assisting water systems and their communities in using land conservation tools, including acquisition and conservation easements, to build drinking water resiliency. Over 80 water systems (including tribal water systems) were contacted, invited to attend the workshops, and provided post-workshop resources and information. Representatives from 18 public water systems attended as well as representatives from 35 different partner organizations. Some communities had multiple levels of leadership attend (i.e., water system operator, public works director, city administrator and city commissioners) and many were interested in pursuing source water protection. In 2022, eight water systems were evaluating or pursuing land acquisition or conservation.

**Table 23: Milestone status for DWP-09-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
DWP-09. DEQ (and OHA) will track and report annually on the number of community water systems with substantial implementation and the population served by those water systems.	DWP-09-M1. Oregon achieves substantial implementation for 22 community water systems per year for a total of 110 by Dec. 31, 2026.	In Progress  Expected completion date: Dec. 31, 2026



## DWP-09-M1 Description of action/milestone status

This is an ongoing task completed each year however, many of Oregon's larger and more capable water systems have already achieved substantial implementation. OHA and DEQ are increasing outreach efforts to smaller water systems that have not achieved substantial implementation. These are often disadvantaged communities with limited resources that require additional technical assistance to implement protection strategies. OHA and DEQ are focusing outreach efforts on water systems that have not achieved substantial implementation. A priority list of water systems has been identified for conducting additional follow-up contacts that will provide staff with opportunities to discuss source water assessment report content, results, and offer additional source water protection assistance.

**DWP-09-R1.** Reported annually for the period of July 1-June 30 in the OHA/DEQ annual Drinking Water Protection Program implementation report to EPA.

A summary of OHA/DEQ Drinking Water Protection Program implementation counts submitted to EPA September 29, 2022. DEQ completed text for the written annual report on Dec. 2, 2022. OHA will finalize and submit the report to EPA in February 2023.

**DWP-09-R2.** Number of water systems achieving Substantial Implementation for the first time and associated population served. Reported annually for the period of July 1-June 30.

For the period of July 1, 2021 to June 30 2022, substantial implementation was achieved by seven public water systems serving 3,016 people.

**Table 24: Milestone status for DWP-09-M2**

Actions	Milestones	Status
DWP-09. DEQ (and OHA) will track and report annually on the number of community water systems with substantial implementation and the population served by those water systems.	DWP-09-M2. Oregon achieves EPA's goal of 49 percent by number of community water systems with substantial implementation by Dec. 31, 2026.	In Progress  Expected completion date: Dec. 31, 2026

## DWP-09-M2 Description of action/milestone status

This is an ongoing task completed each year however, many of Oregon's larger and more capable water systems have already achieved substantial implementation. OHA and DEQ are increasing outreach efforts to smaller water systems that have not achieved substantial implementation. These are often disadvantaged communities with limited resources that require additional technical assistance to implement protection strategies. OHA and DEQ are focusing outreach efforts to water systems that have not achieved substantial implementation. A priority list of water systems has been identified for conducting additional follow-up contacts that will provide staff with opportunities to discuss source water assessment report content, results, and offer additional source water protection assistance.

**DWP-09-R3.** Total number and percent by number of Community water systems with substantial implementation. Reported annually for the period of July 1-June 30.

As of June 30, 2022, a total of 332 of the total 910 community water systems (36% of Oregon's community water systems) have "substantially implemented" a strategy to protect their drinking water. Many of Oregon's larger and more capable water systems have already achieved substantial implementation and OHA and DEQ are increasing outreach efforts to smaller water systems that have not achieved substantial implementation.

**Table 25: Milestone status for DWP-09-M3**

Actions	Milestones	Status
DWP-09. DEQ (and OHA) will track and report annually on the number of community water systems with substantial implementation and the population served by those water systems.	DWP-09-M3. Oregon achieves EPA's goal of 59 percent of Oregon's population served by community water systems with substantial implementation by Dec. 31, 2026.	Meeting Milestone  Completion date: June 2022

## **DWP-09-M3 Description of action/milestone status**

This task is complete, and Oregon has exceeded EPA's national target. However, providing technical assistance to public water systems so they can achieve substantial implementation is a high priority for drinking water protection and additional outreach will occur in subsequent years for the 2022-2026 Oregon Nonpoint Source Management Program Plan.

**DWP-09-R4.** Total population and percent of population served by community water systems with substantial implementation. Reported annually for the period of July 1-June 30.

As of June 30, 2021, the number of Oregonians served by community water systems is estimated to be 3,542,543 and the number served by community water systems that have minimized public health risks through substantial source water protection is 2,995,930. Based on our estimates, this is 85% of the community water system service population in Oregon. This exceeds the EPA national target of 59% for the percent of population protected.

## **1.5 Groundwater Protection Program**

**Program Goal:** Prevent groundwater contamination from nonpoint sources.

**Objective 12:** Increase awareness about groundwater quality and groundwater best management practices

**Objective 13:** Support implementation of Groundwater Management Area Action Plans in Oregon's three groundwater management areas.

**Objective 14:** Monitor groundwater quality around the state.

**Table 26: Milestone status for GW-01-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-01. Work cooperatively with Deschutes County and local groups on the South Deschutes/North Klamath Groundwater Protection Project to identify and implement measures to protect groundwater quality.	GW-01-M1. Attend two meetings annually with local groups on the South Deschutes/North Klamath Groundwater Protection Project between 2022 and 2026.	Not Meeting Milestone  Expected completion date: 05/2023

### **GW-01-M1 Description of action/milestone status**

This project has not been actively worked on and no local groups have met since 2015. Deschutes County and DEQ continue to evaluate variance requests for installation of new septic systems in the area.

In June 2022, evaluation and planning including a video conference call was held to discuss a resampling effort and potential next steps in southern Deschutes County.

In March 2023, DEQ recently completed first phase of drinking water sampling from 50 well locations to determine current state of nitrate concentrations. Additional sampling is anticipated in fall of 2023 for additional locations.

**GW-01-R1.** Number of meetings attended. Reported annually.

Deschutes County, DEQ or local groups have not met in person for a number of years on this topic. In 2022, Deschutes County and DEQ completed video conferencing to discuss a reboot and next steps in southern Deschutes County.

**Table 27: Milestone status for GW-02-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-02. Partner with University of Oregon to identify messages that resonate with Southern Willamette Valley residents to get their drinking water wells tested or treated.	GW-02-M1. Well testing message developed by end of 2026.	In Progress  Expected completion date: December 2023

### **GW-02-M1 D Description of action/milestone status**

While a similar 2017 outreach project has been completed, this project is still currently being planned and has not yet been completed.

**GW-02-R1.** Status of project. Reported annually.

Expected completion date is for 2024 timeframe.

**Table 28: Milestone status for GW-03-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-03. Partner with Portland State University and Oregon State University to optimize grass seed production while protecting groundwater and air quality by studying how slow-release fertilizers affect seed yield and nitrate leaching to groundwater	GW-03-M1. Slow-release fertilizer study completed by end of 2026.	Meeting Milestone  Completion date: March 2021

## **GW-03-M1 Description of action/milestone status**

**GW-03-R1.** Date study was completed. Reported annually. **GW-03-R2.** Description of study results and conclusions. Reported annually.

DEQ in partnership with Portland State University completed the slow-release fertilizer study in March 2021.

**Table 29: Milestone status for GW-04-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-04. Participate with EPA and the Partnership to Improve Nutrient Efficiency (PINE) group to complete lysimeter testing at 15 sites and share information about leaching and soils data back to producers.	GW-04-M1. Lysimeter testing completed	Meeting Milestone  Completion date: November 2020

## **GW-04-M1 Description of action/milestone status**

**GW-04-R1.** Status of project and summary of results. Reported annually.

DEQ completed the lysimeter testing at 15 sites in November of 2020

**Table 30: Milestone status for GW-06-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-06. Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the Lower Umatilla Basin Action Plan.	GW-06-M1. Coordinate with the Lower Umatilla Basin GWMA* Committee at least two times annually.	Meeting Milestone  Completion Date: January 2023

\*GWMA - Groundwater Management Area

## **GW-06-M1 Description of action/milestone status**

**GW-06-R2.** Number of meetings attended. Reported annually.

DEQ coordinated with the Lower Umatilla Basin GWMA Committee at least twice in 2022.

**Table 31: Milestone status for GW-07-M2**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-07. Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the North Malheur County GWMA Action Plan.	GW-07-M2. Coordinate with the North Malheur County GWMA Committee at least four times annually and monthly if possible.	Not Meeting Milestone  Expected completion date: June 2023

### **GW-07-M2 Description of action/milestone status**

The North Malheur GWMA committee has not actively met for several years. DEQ continues to sample a well network on an annual basis to track nitrate and Dacthal concentrations. Oregon State University Extension Service in Ontario continues to provide local interface with the agricultural community and manage individual farm plans.

**GW-07-R2.** Number of meetings attended. Reported annually.

The NMGWMA committee has not been actively meeting recently. It is anticipated following the 2023 legislative cycle that the committee will have at least one video conference to discuss on-going sampling and a potential update of the action plan.

**Table 32: Milestone status for GW-08-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-08. Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the Southern Willamette Valley GWMA Action Plan.	GW-08-M1. Coordinate with the Southern Willamette Valley GWMA Committee at least two times annually and monthly if possible.	Meeting Milestone  Completion date: December 2022

### **GW-08-M1 Description of action/milestone status**

**GW-08-R2.** Number of meetings attended. Reported annually.

DEQ continues to provide coordination, technical assistance and information sharing as part of day-to-day Southern Willamette Valley GWMA management. Two annual GWMA committee meetings are currently held via video conferencing.

**Table 33: Milestone status for GW-09-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-09. Evaluate progress reducing groundwater contamination in Groundwater Management Areas	GW-09-M1. Complete a groundwater nitrate status and trend analysis every four years.	In Progress  Expected completion date: 2023

## GW-09-M1 Description of action/milestone status

DEQ and GWMA stakeholders continue to evaluate the progress of Oregon's three declared GWMA. Two of the three trend analyses have been completed. The SWGWMA trend analysis scheduled for 2023 has not been completed. Following collection and evaluation of 2023 analytical data for the SWGWMA anticipation for completion of a trend analysis is early 2024.

**GW-09-R1.** Status of analysis. Reported annually.

DEQ continues to collect and analyze for nitrate and other constituents in the GWMA. Annual reporting is managed through individual letters to well owners, updating the DEQ database, and evaluating and updating well trends as necessary.

**Table 34: Milestone status for GW-10-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-10. Continue monitoring wells in Lower Umatilla Basin GWMA.	GW-10-M1. Complete quarterly groundwater sampling of approximately 31 wells.	Meeting Milestone  Completion date: November 2022

## GW-10-M1 Description of action/milestone status

**GW-10-R1.** Status of sampling. Reported annually.

DEQ completed sampling of 31 wells in the Lower Umatilla Basin GWMA in November 2022.

**Table 35: Milestone status for GW-11-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-11. Continue monitoring wells in the Northern Malheur County GWMA.	GW-11-M1. Complete groundwater sampling of approximately 36 wells annually.	Meeting Milestone  Completion date: May 2022

## GW-11-M1 Description of action/milestone status

**GW-11-R1.** Status of sampling. Reported annually.

DEQ completed groundwater sampling of 36 wells in the Northern Malheur County GWMA in May of 2022.

**Table 36: Milestone status for GW-12-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-12. Continue monitoring wells in the Southern Willamette Valley GWMA.	GW-12-M1. Complete groundwater sampling at approximately 27 locations annually.	Meeting Milestone  Completion date: November 2022

## **GW-12-M1 Description of action/milestone status**

**GW-12-R1.** Status of sampling. Reported annually.

DEQ completed groundwater sampling at 27 monitoring wells within the Southern Willamette Valley GWMA in November of 2022.

**Table 37: Milestone status for GW-13-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
GW-13. Characterize groundwater quality outside of groundwater management areas.	GW-13-M1. Complete groundwater sampling at approximately 50 wells in one targeted geographic area annually	Meeting Milestone

## **GW-13-M1 Description of action/milestone status**

In late 2022, the southern Deschutes County area of concern was selected to be sampled. In March 2023, Oregon DEQ completed the first phase of drinking water sampling from 50 well locations to determine current state of nitrate concentrations. Additional sampling is anticipated in fall 2023 for additional locations.

**GW-13-R1.** Name and description of the groundwater monitoring geographic area. Reported annually.

Preliminary data is anticipated in May 2023 from March 2023 sampling event. Fall 2023 sampling data is expected approximately two months following the sampling. A report summarizing the information is expected to be completed by end of 2023 or early 2024.

**GW-13-R2.** Status of sampling. Reported annually.

Preliminary data is anticipated in May 2023 from March 2023 sampling event. Fall 2023 sampling data is expected approximately 2 months following the sampling. A report summarizing the information is expected to be completed by end of 2023 or early 2024.

## **1.6 Section 319 Grant Program**

**Program Goal:** Reduce nonpoint source pollution by funding the implementation of the state Nonpoint Source Management Program Plan.

**Objective 15:** Section 319 pass through grants fund projects that support the overall goals of watershed-based plans

**Objective 16:** Administer 319 grant funding efficiently and effectively and consistent with legal obligations.

**Table 38: Milestone status for 319-1-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-1. DEQ or EPA reviews watershed-based plans or alternative plans for inclusion as priorities in the 319 grant RFP.	319-1-M1. 100% of priorities included in the 319 grant RFP have been reviewed using a checklist approach that specify how the plans address the required elements of a watershed-based plan or alternative plan as presented in EPA's 319 grant guidelines (EPA, 2013).	Meeting Milestone  100% of priorities included in the 319 grant RFP

### **319-1-M1 Description of action/milestone status**

100% of priorities included in the calendar year 2022 319 RFP implement a watershed-based plan. The plans have been reviewed by DEQ staff or EPA and utilize a checklist approach to ensure all the required elements have been addressed.

**319-1-R1.** Percent of priorities included in the 319 RFP that implement a watershed-based plan or alternative plan. Reported annually.

100%

**319-1-R2.** Number of watershed-based plan or alternative plan checklists reviewed during the reporting year. Reported annually.

Three watershed-based plan checklists were reviewed in calendar year 2022.

**319-1-R3.** Total number of watershed-based plan or alternative plan checklists that have been reviewed and included in the 319 grant RFP to date. Reported annually.

25 unique watershed-based plans or alternative plan checklists have been reviewed and included in the 319 grant RFP, including checklists reviewed in calendar year 2022.

**319-1-R4.** Description of new watershed-based plan or alternative plan checklists reviewed including geographic area covered and pollutants addressed. Reported annually.

In calendar year 2022, DEQ staff reviewed and approved three new watershed-based plan checklists that address temperature. The three checklists address temperature in the following watersheds

- Luckiamute River Watershed (1709000305)



- Rogue including the Applegate Subbasin (17100309), Illinois Subbasin (17100311), Lower Rogue Subbasin (17100310), Middle Rogue Subbasin (17100308), and Upper Rogue Subbasin (17100307)
- Lower Willamette Subbasin (17090012)

The Lower Willamette checklist updates and expands upon the 2019 Johnson Creek checklist for temperature. The Johnson Creek checklist will be archived, and the Lower Willamette checklist will be used instead.

**Table 39: Milestone status for 319-2-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-2. Solicit and select 319 projects that support priorities.	319-2-M1. Annually, 100% of funded projects demonstrate progress implementing project objectives.	Meeting Milestone  See 319-2-R9

**Table 40: Milestone status for 319-2-M2**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-2. Solicit and select 319 projects that support priorities.	319-2-M2. 100% of grant recipients submit an annual performance report no later than June 30th of each year.	Meeting Milestone  100% of the contracted grants provided an annual performance report.

## **319-2-M1 and 319-2-M2 Description of action/milestone status**

**319-2-R1.** Number of new nonpoint source projects funded using 319 dollars during the reporting period. Reported annually.

Six new projects received 319 funds for the 2022 award.

**319-2-R2.** Number of open 319 grant agreements during the reporting period. Reported annually.

There were 26 open 319 grant agreements in calendar year 2022.

**319-2-R3.** Cumulative number of nonpoint source projects funded using 319 dollars starting in 319 fiscal year 2022 through fiscal year 2026. Reported annually.

There were six nonpoint source projects funded using 319 dollars from the 2022 award.

**319-2-R4.** Total amount of 319 pass through funds used to fund projects during the reporting period. Reported annually.

DEQ awarded \$135,067 plus \$39,074 of re-obligated funds for a total of \$174,141 319 pass through funds, using funds from the 2022 award.

**319-2-R5.** Cumulative amount 319 pass through funds used to fund all nonpoint source projects starting in 319 fiscal year 2022 through fiscal year 2026. Reported annually.

The cumulative amount of 319 pass through funds awarded is \$174,141.

**319-2-R6.** Description of each open 319 project including Project Name, Agreement Number, Grant Recipient, and a project description that includes identification of the project objectives. Reported annually.

See Appendix B of this report

**319-2-R7.** Description 319 project activities or outputs that occurred or were reported to DEQ during the reporting period. Reported annually.

See Appendix B of this report

**319-2-R8.** Number and percent of grant recipients that submitted an annual performance report no later than June 30 of each year. Reported annually.

Of the 26 open projects in 2022, 26 (or 100%) of them submitted an annual performance report.

**319-2-R9.** Number and percent of funded projects with DEQ grant administrators determination of satisfactory progress. Reported annually.

26 of 26 (100%) 319 funded projects were given DEQ grant administrators determination of satisfactory progress

**Table 41: Milestone status for 319-3-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-3. Requests for Proposal (RFPs) for 319 sub-awards are released in a timely manner.	319-3-M1. Annual RFP released by March 30 <sup>th</sup> of each year.	Meeting Milestone  Completion date: March 31, 2022

### **319-3-M1 Description of action/milestone status**

**319-3-R1.** Date 319 grant RFP was issued. Reported annually.

The 319 grant RFP was issued on March 31, 2021

**Table 42: Milestone status for 319-4-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-4. DEQ submits an application for funds to EPA.	319-4-M1. Submitted application of funds to EPA annually by May 30.	Meeting Milestone  Completion date: July 9, 2022

## 319-4-M1 Description of action/milestone status

**319-4-R1.** Date application was submitted. Reported annually.

The application for the 2022 award was submitted by the May 31 deadline, however EPA asked for updates to the budget (2017 re-obligated funds to be included in the 2022 budget). The final submittal was completed on July 9, 2022.

**Table 43: Milestone status for 319-5-M1**

Actions	Milestones	Status
319-5. Score 319 sub-awards and obligate funds in a timely manner.	319-5-M1. Grant application scoring and eligibility criteria are updated annually.	Meeting Milestone  Completion date: Sept. 13, 2021

## 319-5-M1 Description of action/milestone status

**319-5-R1.** Date EPA grant was awarded. Reported annually.

EPA awarded the 2021 grant to DEQ on Sept. 13, 2021.

**Table 44: Milestone status for 319-5-M2**

Actions	Milestones	Status
319-5. Score 319 sub-awards and obligate funds in a timely manner.	319-5-M2. 100% of sub-awards are obligated within one year after the EPA grant award.	Not Meeting Milestone  Six of the nine sub-awards were obligated within one year.

## 319-5-M2 Description of action/milestone status

For the nine approved projects receiving funds from the 2021 award the process of drafting and executing an agreement took approximately six to eight months after receiving the funds. Three projects had unexpected delays and were not executed within one year of the award date. The target date was September 13<sup>th</sup>, 2022.

**319-5-R2.** Date each sub award was obligated. Reported annually.

See Appendix B of this report.

**319-5-R3.** Percent of total sub-awards obligated within one year after EPA grant award. Reported annually.

Six of the nine (or 67%) of the total sub-awards were obligated within one year of the date EPA's grant was awarded.

**Table 45: Milestone status for 319-6-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-6. Manage 319 sub-awards consistent with legal obligations and in an efficient manner.	319-6-M1. 100% of grant dollars are spent by the grant end date and no later than five years from the start date or the dollars are “transferred” to a more current existing 319 grant.	Meeting Milestone  Completion date: June 30, 2022

### 319-6-M1 Description of action/milestone status

**319-6-R1.** Percent of grant dollars spent by grant end date or transferred to a more current grant. Reported annually.

Percent of 2017 grant dollars spent by June 30, 2022, grant end date: 88% with 12% re-obligated to 2022 award.

**Table 46: Milestone status for 319-6-M2**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-6. Manage 319 sub-awards consistent with legal obligations and in an efficient manner.	319-6-M2. Grant progress reports are submitted to EPA via GRTS* annually.	Meeting Milestone  Completion date: March 31, 2022

\*GRTS - Grants Reporting and Tracking System

### 319-6-M2 Description of action/milestone status

**319-6-R2.** Date annual grant progress reports were submitted to EPA via GRTS. Reported annually.

DEQ submitted annual grant progress reports to EPA via GRTS on March 31, 2022. The annual progress report includes invoices and project implementation progress for open projects. For closed projects, a progress report would include final invoicing/match information, completed final report, and load reduction estimates, if required.

**Table 47: Milestone status for 319-7-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-7. Determine the feasibility of developing an online, iterative grant application.	319-7-M1. Completed feasibility findings by Dec. 31 2024.	Meeting Milestone  Completion date: Nov. 30, 2022

### 319-7-M1 Description of action/milestone status

**319-7-R1.** Date of completed feasibility determination of online application process. Reported annually.

DEQ completed a feasibility determination of an online application process on Nov. 30, 2022

**319-7-R2.** Summary description of feasibility status, conclusions and any anticipated or completed actions. Reported annually.

The DEQ 319 Process Improvement Team determined that an online 319 grant management approach is not feasible at that time. The intention for a web-based application was targeted to large, complicated grant projects. The 319 projects are smaller and not complicated enough to justify investing the time in an application development and training program. Further evaluation could be considered in the future.

**Table 48: Milestone status for 319-8-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
319-8. Update review and/or scoring criteria and project eligibility requirements for 319 funds,	319-8-M1. Completion of review and updates to scoring criteria.	Meeting Milestone  Completion date: March 31, 2022

## **319-8-M1 Description of action/milestone status**

**319-8-R1.** Date of completed review. Reported annually.

DEQ completed a review and update of the scoring criteria and project eligibility requirements for 319 funds on March 31, 2022.

**319-8-R2.** Narrative summary describing review status and any anticipated or completed actions. Reported annually.

Every year, before RFP is sent, in this case March 2022 for the 2022 Award, the 319 Process Improvement Team, with members representing each DEQ region begin reviewing and updating the scoring criteria for the incoming RFP. Updated elements include environmental justice activity eligibility and how those activities are ranked. The ranking criteria is continually being updated to be used consistently throughout the regions. For example, in previous versions regions had additional criteria and/or priorities, and changes have been made so that all regions are using the same criteria.

## **319 Program and Performance Partnership Grant**

The federal 319 contribution to the 2022-2024 Performance Partnership Grant supports Element 2 (TMDLS - Total Maximum Daily Loads and Water Quality Management Plans) and Element 8 (Management of Nonpoint Sources of Pollution) of Appendix C. ([PPA2024.pdf \(oregon.gov\)](#)). The federal share of the 319 grant contribution to the grant is budgeted to fund 8.94 FTE. Table 73 summarizes the 319 funded activities to be completed by those 8.94 FTEs.

**Table 49: Summary of 319 funded activities by FTE**

<b>2022 Oregon's 319 Grant Funded Positions and Nonpoint Source Program Activities</b>	<b>FTE</b>
NPS TMDL Modeling	1.89
Regional NPS Implementation and NPS TMDL Development and Implementation	5.04
Prorates and Management and Administrative Support	1.01
319 Grant Administration and Provision of Technical Assistance with Applicants, DEQ Staff and Coordination with Other Funding Agencies	1.00
NPS Policy Development, Collaboration and Provision of Technical assistance with Stakeholders and other Local, State, and Federal Agencies	0.00*

*\*This was included to reflect the change from 1.00 FTE in the 2020-2022 budget to 0.00 in the 2022-2024 budget.*

In 2022, \$853,230 of Section 319 funds were used to support DEQ staff implementing eligible activities. Combined with pass through grants that directly funded watershed-based projects (\$174,141) the total sum of 319 funds spent on watershed based projects and eligible activities by DEQ staff was \$1,027,371. Therefore, DEQ spent the equivalent of 57% of the total 2022 appropriation (\$1,792,500) implementing watershed projects and exceeding the minimum requirement in EPA guidance that states must use at least 50% of the annual appropriation of Section 319 funds for watershed project implementation.

## 1.7 Clean Water State Revolving Fund

**Program Goal:** Assist communities in restoring, maintaining, and enhancing water quality by offering financial assistance for water pollution control, and water quality improvement and protection projects

**Objective 17:** Fund innovative and nontraditional projects that address and control nonpoint source pollution.

**Table 50: Milestone status for CWSRF-1-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
CWSRF-1. Fund nonpoint pollution control projects with Oregon CWSRF	CWSRF-1-M1. Continue to provide CWSRF loans for nonpoint source pollution control projects in Oregon annually over the next five years.	Meeting Milestone  Completion date: 2022

### CWSRF-1-M1 Description of action/milestone status

**CWSRF-1-R1.** Number of new nonpoint source projects funded using CWSRF dollars during the reporting period.

**Table 51: Summary of new nonpoint source projects funded using CWSRF dollars**

<b>Project Name</b>	<b>Applicant</b>	<b>Amount Requested</b>	<b>Milestones/Status</b>
Infrastructure Resiliency and Modernization Project	Arnold Irrigation District	\$8,699,900	IUP*
Kingman Lateral First Mile Piping Project	Owyhee Irrigation District	\$500,000	IUP*
Patterson Creek Culvert Replacement	City of Bay City	\$730,000	IUP*
Pacific City Transfer Station Expansion and Repair	Tillamook County Solid Waste Management District	\$1,753,883	Next IUP*
Manzanita Transfer Station Improvements Project	Tillamook County Solid Waste Management District	\$766,153	Next IUP*
Land Acquisition in the North Fork Hubbard Creek Watershed Drinking Water Supply	City of Port Orford	\$800,000	Next IUP*

*\*Intended Use Plan*

**CWSRF-1-R5.** Description of each active CWSRF nonpoint source project including Project Name, Agreement or Loan Number, Recipient, and a project description that includes identification of the project objectives.

See Appendix C of this report

**CWSRF-1-R6.** Description of project outputs or accomplishments that occurred or were reported to DEQ during the reporting period.

See Appendix C of this report

## **1.8 Agriculture water quality**

**Program Goal:** Control of pollution from agricultural practices in order to attain and maintain water quality standards.

**Objective 18:** DEQ and ODA agree on their respective statutory obligations and responsibilities to attain and maintain water quality standards on agricultural lands and document that agreement in a Memorandum of Agreement.

**Objective 19:** DEQ reviews ODA area plans and rules and provides comment to ODA.

**Objective 20:** ODA and partners track progress and water quality response in strategic implementation areas.

**Table 52: Milestone status for AG-02-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
AG-02. DEQ reviews ODA's area plan and rules and advises ODA of any changes or additions necessary to achieve water quality standards and meet TMDL agricultural load allocations.	AG-02-M1. DEQ has submitted to ODA written comments and recommendation of any changes or additions to area plans and rules during the biennial review process for 100% of management areas where a full review was conducted (or 100% of all management areas at least once every four years).	Not Meeting Milestone  <b>DEQ submitted written recommendations to ODA for 60% (3 of 5) of the biennial review process where a full review was conducted in 2022.</b>

### **AG-02-M1 Description of action/milestone status**

DEQ submitted written comments and recommendations to ODA for 60% (three of five) of the biennial review process where a full review was conducted in 2022 (Table 53).

**AG-02-R1.** Identification of all management areas from the previous calendar year in which ODA completed a biennial review including which reviews were full reviews and which were lite reviews. Reported annually.

See Table 53.

**AG-02-R2.** Identification of all management areas from the previous calendar year in which DEQ submitted to ODA written comments and recommendations. Reported annually.

Staffing and workload constraints contributed to DEQ not submitting written comments and recommendations for all agricultural water quality management area reviews in the reporting period. See Table 53.



**Table 53: Summary of Agricultural Water Quality Management Areas with lite and full review in reporting period**

<b>AG Water Quality Management Area</b>	<b>What type of review was it (Full/Light)?</b>	<b>Did DEQ submit written comments and recommendations to ODA in 2022?</b>
Burnt River	Full	Yes
Clackamas	Full	No
Coos-Coquille	Light	No
Inland Rogue	Full	Yes
Lost River	Full	No
Powder-Brownlee	Full	Yes
Walla Walla	Light	No
Wallowa	Light	No
Willamette - Lower	Light	No
Willamette - Middle	Light	Yes
Yamhill	Light	Yes

**Table 54: Milestone status for AG-03-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
AG-03. Development monitoring plans for each SIA*.	AG-03-M1. A monitoring plan is approved for each SIA* by the statewide Monitoring and Assessment Group (MAG) within one year of signing of SIA* agreement. The MAG consists of representatives from ODA, OWEB, DEQ, and ODFW.	Meeting Milestone  Completion date: 2022

\*SIA – Strategic Investment Area

## **AG-03-M1 Description of action/milestone status**

The SIA Monitoring and Assessment Group has been collecting feedback from interested parties across the state to incorporate into a more streamlined, transparent, and accessible process. The group aims to reduce the burden on soil and water conservation districts and other small organizations that would like to participate in the SIA program, but don't have the technical or administrative capacity to submit a comprehensive application. This has been a collaborative effort from group members led by ODA and OWEB.

**AG-03-R1.** Number and identification of SIA monitoring plans approved by the group in the previous calendar year. Reported annually.

There were 3 SIA monitoring proposals approved by the group in calendar year 2021 and 4 in 2022.

**Table 55: Summary of SIAs with monitoring proposals approved by the MAG in 2021 and 2022**

<b>SIA</b>	<b>Year Approved</b>
Drewsey	2021
Lower Gales and Carpenter Creeks	2021
Upper Chewaucan	2021
Lower and Middle Clear Creeks	2022
Campbell Creek	2022
Howell-Prairie	2022
Deer Creek and Lower South Yamhill River	2022

**Table 56: Milestone status for AG-06-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
AG-06. Implementation of SIAs	AG-06-M1. In closed SIAs, 100% of taxlots identified on the first evaluation as potentially or likely out of compliance with evaluated area rules are in compliance.	Meeting Milestone

## **AG-06-M1 Description of action/milestone status**

**AG-06-R1.** Percentage of SIA properties in closed SIAs that are deemed in compliance with evaluated area rules. Reported annually.

99.7%

**AG-06-R2.** Percentage of tax lots identified as having no regulatory concerns on the first evaluation. Reported annually.

89.5%

**AG-06-R3.** Total number of SIA properties in closed SIAs that are deemed in compliance with evaluated area rules. Reported annually.

2,687

**AG-06-R4.** Total number of tax lots identified as having no regulatory concerns on the first evaluation. Reported annually.

2,414

**AG-06-R5.** Total number of evaluated tax lots in SIAs. Reported annually.

2,696

**AG-06-R6.** Identification of closed SIAs. Reported annually.

- Applegate River Phase 1, Inland Rogue Agricultural Water Quality Management Area
- Camp Creek SIA, Southern Willamette Valley Agricultural Water Quality Management Area

- Drewsey, Malheur River Agricultural Water Quality Management Area
- Eightmile SIA, Lower Deschutes Agricultural Water Quality Management Area
- Lower Coquille River, Coos-Coquille Agricultural Water Quality Management Area

## 1.9 Private forestry

**Program Goal:** Control of pollution from private forest practices in order to attain and maintain water quality standards.

**Objective 21:** Implementation of the Private Forest Accord.

**Table 57: Milestone status for PF-01-M1**

Actions	Milestones	Status
PF-01. Adoption of permanent rules consistent with the requirements of the Private Forest Accord Report.	PF-01-M1. Rules are adopted by Nov. 30, 2022.	Meeting Milestone  Completion date: Oct. 26, 2022

### PF-01-M1 Description of action/milestone status

**PF-01-R1.** Status of rule development and adoption. Reported in 2022 annual report or until complete.

New rules under the Private Forest Accord (SB1602, SB1501, SB1502, HB4055) were adopted by the Oregon Board of Forestry on October 26, 2022. Rules for fish-bearing streams on private industrial forestlands take effect on July 1, 2023, and remaining rules (e.g. non-fish-bearing streams, roads, steep slope management) take effect on Jan. 1, 2024.

**Table 58: Milestone status for PF-02-M1**

Actions	Milestones	Status
PF-02. Fish distribution maps are updated.	PF-02-M1. An initial update is incorporated into ODF* FERNS** no later than July 1, 2023.	In Progress  Expected completion date: July 2023

\*ODF – Oregon Department of Forestry

\*\*FERNS - Forest Activity Electronic Reporting and Notification System

### PF-02-M1 Description of action/milestone status

This work is currently in progress and must be completed by July 2023 when new rules for fish-bearing streams on industrial forestlands take effect. These maps have regulatory and water quality implications, as the protection difference between fish-bearing and non-fish-bearing waterbodies is substantial. Oregon departments of Forestry and Fish and Wildlife are currently at work on this task.

**PF-02-R1.** Status of mapping and incorporation into ODF FERNS and geodatabases. Reported annually until complete.

Metric is completion of mapping and incorporation into regulatory databases.

**Table 59: Milestone status for PF-03-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
PF-03. Maps identifying perennial streams in Oregon are updated.	PF-03-M1. The updated maps identifying perennial streams are incorporated into ODF FERNS no later than July 1, 2025.	In Progress  Expected completion date: 2025

### **PF-03-M1 Description of action/milestone status**

The status of PF-03-M1 is that this task is in process. Methods of analysis are being evaluated and decided upon. Once this methodology evaluation is complete, the analysis will be done to identify perennial streams, particularly non-fish-bearing streams where perenniality has regulatory and habitat/water quality protection implications.

**PF-03-R1.** Status of mapping and incorporation into ODF FERNS and geodatabases. Reported annually until complete.

Metric is completion of mapping and incorporation into regulatory databases.

**Table 60: Milestone status for PF-04-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
PF-04. A Habitat Conservation Plan consistent with the Private Forest Accord Report is developed and submitted to the US Fish and Wildlife Service and National Marine Fisheries Service (the Services).	PF-04-M1. The Habitat Conservation Plan is submitted to the National Marine Fisheries Service and the U.S. Fish and Wildlife Service on or before Dec. 31, 2022.	Meeting Milestone  Completion date: December 2022

### **PF-04-M1 Description of action/milestone status**

This is the first step in a multi-part process for submitting a Habitat Conservation Plan to the services, eventually culminating in the services issuing an Incidental Take Permit to the State of Oregon for the covered species of fish and amphibians. Additional milestones are summarized below as reporting metrics.

**PF-04-R1.** Status of Habitat Conservation Plan and date submitted. Reported in 2022 annual report or until complete.

Future metrics are: submitting an administrative draft HCP, revising as needed based on comments from the services for public and final drafts, National Environmental Policy Act

processes including an Environmental Impact Statement, and approval of the HCP and issuance of an ITP to the State.

**Table 61: Milestone status for PF-05-M1**

Actions	Milestones	Status
PF-05. The state agencies complete other actions necessary to implement the requirements of the Private Forest Accord Report.	PF-05-M1. Completion of other actions necessary to implement the requirements of the Private Forest Accord Report.	In Progress  Expected completion date: 2026

## **PF-05-M1 Description of action/milestone status**

**PF-05-R1.** Status and summary of other actions completed.

Additional actions/milestones include writing and publishing implementation guidance for new forestry rules; completing steep slope analysis, mapping, and rule implementation; forest road rule implementation including forest road inventory and analysis; establishing adaptive management program (both Adaptive Management Planning Committee and Independent Research and Science Team); and implementing Small Forestland Owner program. These actions are in progress and expected to be complete in 2026.

Oregon is making progress resolving the remaining forestry gaps EPA and NOAA identified in Oregon's Coastal Nonpoint Pollution Control Program. The recent rule revisions to the Forest Practices Act stemming from the Private Forest Accord will lead to a wide-ranging set of actions and management practices that are expected to have a significant improving effect on water quality. DEQ, ODF, and DLCD staff worked on updating the program with additional information on the new forestry rules as well as other sections to address the remaining gaps. The Oregon Department of Justice worked on updating Oregon's enforceable authorities memo which will be considered as part of the updated program.

## **1.10 Oregon Watershed Enhancement Board**

**Program Goal:** The state implements its nonpoint source funding programs efficiently and effectively, including necessary financial management.

**Objective 22:** The state evaluates that major recipients of state grant funds demonstrate effective organizational governance and management.

**Table 62: Milestone status for OWEB-01-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
OWEB-01. OWEB funds Watershed Councils that demonstrate effective organization governance and management.	OWEB-01-M1. 100% of watershed councils funded by OWEB demonstrate effective organization governance and management using OWEB merit criteria	Meeting Milestone  Completion date: 2022

## OWEB-01-M1 Description of action/milestone status

Fifty-eight Watershed Council Capacity grant applications were received by the March 2021 application deadline. The applications were evaluated based on four merit criteria: 1) effective governance and management, 2) progress in planning, 3) progress in on-the-ground watershed restoration, and 4) progress in community engagement for watershed restoration purposes. All criteria are equally weighted in the review process. OWEB staff considered the following information in the review: 1) information in the council's two-year work plans; 2) answers to the Council Capacity grant application questions; 3) OWEB staff's knowledge of council performance; 4) any supplemental information provided by the council in response to OWEB's request; and 5) if requested by OWEB, interviews with council officers and staff. OWEB considers a watershed council to have met its work plan objectives if they meet all four merit criteria. For the 2021-2023 Council Capacity grant cycle, all 56 of the watershed councils recommended for funding met all four of the merit criteria and received full funding; two councils demonstrated inadequate performance and were not funded. Specific to this key performance measure, 56 out of 56 organizations receiving funding met both the effective governance and management criteria

**OWEB-01-R1.** Percent of OWEB funded watershed councils that demonstrate effective organizational governance and management using OWEB merit criteria. Evaluated for years 2021, 2023, 2025 and reported in the 2022, 2024, and 2026 nonpoint source annual report.

100%

## 1.11 Toxics reduction strategy

**Program Goal:** Reduce toxic chemicals in Oregon's environment

**Objective 23:** Support and complement DEQ's core toxics reduction and assessment in water quality programs

**Table 63: Milestone status for TRS-02-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
TRS-02. Identify analytical methods or process improvements needed to analyze Focus List chemicals.	TRS-02-M1. As early as July 1, 2023, DEQ has a tracking tool identifying the status of which Focus List chemicals DEQ is approved to sample and process, and which chemicals require additional method development and certification.	In Progress  Expected completion date: 2023

## TRS-02-M1 Description of action/milestone status

The tool identifies Focus List chemicals the lab has capabilities to analyze, has limited capabilities, or does not have capabilities in applicable environmental media. The tool also identifies the analytical method for chemicals the lab has capabilities to analyze, lists lab limitations, and identifies development needs for compounds the lab does not have methods for. The tool was shared with the lab management team in August 2021 and received positive feedback for its utility and ease of use. The tool was undergoing peer review when work ceased in late 2021. The 2019-2023 Focus List is due to be revised in 2023, and the lab tracking tool will be revised accordingly. Once revised, the tool will be peer reviewed and shared with program leads.

**TRS-02-R2.** Summary of Focus List chemicals for which DEQ laboratory is newly certified to sample and process. Reported annually.

Work ceased in 2021 and will begin again in 2023. No work was done on the list in 2022.

## 1.12 Water Quality Pesticide Management Team

**Program Goal:** Reduce the impact of pesticide use on water quality across the state.

**Objective 24:** Reduce all pesticides from high and moderate level of concern to low level of concern.

**Table 64: Milestone status for PSP-01-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
PSP-01. Monitor and analyze pesticide levels in waterbodies.	PSP-01-M1. Sampling complete, data submitted to AWQMS and analyzed by DEQ staff by March of the following year. .	Meeting Milestone  Completion date: March2022

## PSP-01-M1 Description of action/milestone status

**PSP-01-R1.** Summary of data analysis in WQMPT and watershed-based PSP reports and presentations. Reported annually.

Throughout 2022 DEQ completed development, launched, and maintained an online interactive data viewer to provide increased access to interpreted data analysis of the PSP program data. This supports both internal and external partners in their decision making and communication throughout the program. Additionally, DEQ provided specific data analysis to support presentations to PSP partners across the state as well as WQPMT members and ODA.

**Table 65: Milestone status for PSP-02-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
PSP-02. Communicate monitoring results and management strategies to stakeholder groups and policy makers to increase understanding of the pesticide water quality programs and results and gain commitment on implementing actions to reduce priority pesticides in surface waters	PSP-02-M1. Attend meetings during the spring and winter with stakeholder groups, agency leadership and policy makers to provide analysis summary of monitoring results to inform decision-making, plans, and implementation actions.	Meeting Milestone  Completion date: 2022

## PSP-02-M1 Description of action/milestone status

**PSP-02-R1.** Number of meetings attended and summaries delivered on monitoring results. Reported annually.

DEQ gave presentations to PSP Partners or other interested parties in 2022:

1. Pudding – Feb. 11, 2022
2. Hood River – Feb. 28, 2022
3. Middle Rogue – March 31, 2022
4. Orchard Managers Meeting (in The Dalles) – April 15, 2022
5. Clackamas River Basin Council Meeting – May 19, 2022
6. Connect+ Conference Presentation – July 22, 2022

ODA staff, who co-manage the program with DEQ, gave an additional 7 presentations to PSP Partners or commodity groups, or other entities.

**Table 66: Milestone status for PSP-03-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
PSP-03. Provide technical assistance grants to PSP groups for the research and implementation of pesticide reduction strategies.	PSP-03-M1. Technical assistance grants awarded during each biennium	Meeting Milestone  Completion date: 2022



## PSP-03-M1 Description of action/milestone status

The 2022 PSP Biennial Report includes a summary of the technical assistance grants. The document was published on DEQ and ODA's respective websites in January 2023. The 2024 Biennial Report is anticipated to be completed by December 2024.

**PSP-03-R1.** Number of projects funded. Reported annually.

During the 2019-2021 Biennium, the PSP Program funded 9 projects – eight projects in PSP Basins (Amazon, Clackamas, Hood River, Middle Deschutes, Middle Rogue, Yamhill, and Pudding PSPs) and to Oregon State University.

**PSP-03-R2.** Description of project objectives. Reported annually.

PSP Partner grants were provided to fund water quality monitoring activities and the development, the development of strategic plans to guide efforts by PSP partners, and/or the dissemination of education workshops/materials.

**PSP-03-R3.** Project objectives accomplished. Reported annually.

PSP partners report on the accomplished project objectives on a bi-annual schedule. The next grant reports are due in 2023.

**PSP-03-R4.** Summary of technical assistance grants provided in the program's end of biennium reports (2022 and 2024).

The 2022 PSP Biennial Report includes a summary of the technical assistance grants. The document was published on DEQ and ODA's respective websites in January 2023. The 2024 Biennial Report is anticipated to be completed by December 2024.

**Table 67: Milestone status for PSP-04-M1**

Actions	Milestones	Status
PSP-04 Sponsor waste collection events across the state to safely dispose of excess or banned chemicals and prevent them from entering any waterways.	PSP-04-M1. At least one waste collection event completed each year	Meeting Milestone  Completion date: October2022

## PSP-04-M1 Description of action/milestone status

**PSP-04-R1.** Number of collection events, amount collected and number of participants. Reported annually.

Number of collection events: 7

Amount of pesticides collected and disposed of: 64,329 pounds

Number of participants: 117 participants

## 1.13 Nonpoint Source Program

**Objective 25:** Update and report progress implementing Oregon's nonpoint source management program plan.

**Objective 26:** DEQ has a strategy to detect, manage, and control freshwater cyanobacteria harmful algal blooms that affect beneficial uses, drinking water, and recreational activities.

**Table 68: Milestone status for NPS-02-M1**

Actions	Milestones	Status
NPS-02 Complete an annual nonpoint source report that describes the progress in implementing the State's nonpoint source management program plan.	NPS-02-M1. Annually, DEQ submits the completed nonpoint source program annual report to EPA by May 30.	Meeting Milestone  Completion date: July 2022

### NPS-02-M1 Description of action/milestone status

**NPS-02-R1.** Date annual report submitted to EPA. Reported annually.

The final 2021 Nonpoint Source Annual Report was submitted to EPA in July of 2022. This was past the deadline defined by our Nonpoint Source Program Management Plan and the process has been adjusted to meet the deadline for the 2022 report.

**Table 69: Milestone status for NPS-03-M1**

Actions	Milestones	Status
NPS-03. Best management practices and other strategies are implemented to reduce pollutant loading.	NPS-03-M1. Annually the count or amount of practices and management strategies that have been completed in each subbasin in Oregon is reported in the nonpoint source annual report.	Meeting Milestone  Completion date: 2022

### NPS-03-M1 Description of action/milestone status

**NPS-03-R1.** The annual count or amount of practices and management strategies implemented for each HUC8 subbasins. Reported annually.

The annual count and amount of practices are provided in Appendix A of this report.

**Table 70: Milestone status for NPS-05-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
NPS-05. Determine with EPA available nonpoint source success stories documenting either water quality progress or attainment of water standards.	NPS-05-M1. Complete evaluation of potential success stories following completion of the Integrated Report.	Meeting Milestone  Completion date: 09/2022

## **NPS-05-M1 Description of action/milestone status**

DEQ determined with EPA available nonpoint source success stories for Oregon and completed the assessment in September 2022 following completion of the most recent Integrated Report.

**NPS-05-R1.** Summary describing status of evaluation and any success stories in development. Reported annually

There were two potential success story candidates (South Umpqua and Lower Willamette) identified by EPA's contractor based on the 2022 Integrated Report. These candidates were identified by the end of September 2022 and progress is in motion to develop these into completed Success Stories. Additional data collection is being proposed for the South Umpqua River.

**Table 71: Milestone status for NPS-06-M1**

<b>Actions</b>	<b>Milestones</b>	<b>Status</b>
NPS-06. Update DEQ's Freshwater Cyanobacteria Harmful Algal Bloom Strategy.	NPS-06-M1. Complete updated strategy by Dec. 31, 2022	Not Meeting Milestone  Expected completion date: 02/28/2022

## **NPS-06-M1 Description of action/milestone status**

The updated DEQ Freshwater CyanoHABs Strategy was not completed by the milestone date of December 31, 2022. The strategy underwent final development during 2022 and is under review by the Division Administrator for Water Quality. The strategy is expected to be finalized by June 2023.

**NPS-06-R1.** Date update to the Freshwater Cyanobacteria Harmful Algal Bloom Strategy was completed. Reported in 2022 annual report.

Not complete by DEQ plans to complete the updated Freshwater Cyanobacteria Harmful Algal Bloom Strategy by June 2023.

**NPS-06-R2.** Summary description of updated strategy. Reported in 2022 annual report.

DEQ will provide a summary in the 2023 annual report after completion of the update in 2023.

## **1.14 Environmental justice efforts**

### **Environmental Justice Working Group**

In 2020, a cross media group of staff presented at the American Geophysical Union conference on the merits of an Oregon specific environmental justice mapping tool. This effort led to increased interest and demand for the development of environmental justice tools, policies, and education across the agency. To begin to address this need, staff formed the Environmental Justice Working Group. The purpose of this group was to coordinate the development of DEQ's environmental justice framework to help inform cross-media/division conversations, projects, and work to support the equitable implementation of DEQ's mission of restoring, maintaining, and enhancing environmental quality. This will be done by understanding and reducing disproportionate negative air, land and water pollution burdens and related environmental and public health outcomes for people in Oregon. The first work group meeting was in April 2021 and gave its first presentation to the Environmental Quality Commission in July of 2021. The structure is focused on the planning group and three subgroups; the outreach and engagement, policy, and technical subgroups.

In 2022, House Bill 4077 (HB 4077) passed which, among other things, established the Environmental Justice Council in the Governor's Office and tasked it with the development of an Oregon-specific EJ mapping tool. HB 4077 also created positions at state agencies to support the development of the tool. DEQ received two of these positions. The first was an environmental justice coordinator that would support the council and help coordinate the work between agencies. The second was a research analyst to develop the methodology for incorporating environmental quality data into the EJ analysis for the mapping tool. Both HB 4077 positions were posted in December 2022.

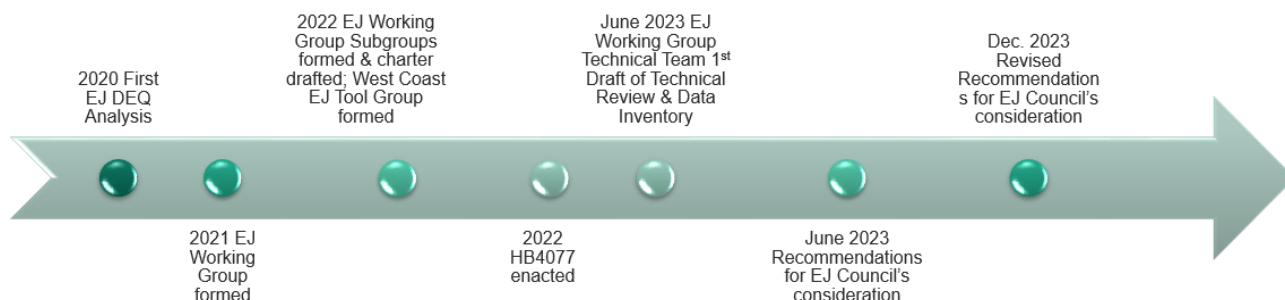
Throughout 2022, the work group's technical team conducted literature and technical reviews of EJ mapping tools across the nation, developed relationships with California, Washington, and Colorado EJ mapping technical teams, participated in statewide equity mapping forums, created data layer inventories and gap analyses, and worked with internal records system to develop best practices for storing and maintaining EJ datasets across the agency. The technical team meets monthly in addition to monthly sub-media meetings that focus on data considerations specific to water, land, and air.

2023 goals by subgroup:

The policy subgroup will support updates to DEQ's existing environmental justice policy, enhance DEQ's rule making process, and serve as policy related EJ support within the agency.

The outreach and engagement subgroup will continue to build a resource library for community outreach and engagement, develop a community partners network and mapping tool, and create tools for culture change within the agency.

In 2023, the technical subgroup will submit its recommendations for data layers to include in the initial development of the Oregon EJ mapping tool and continue to support the process and respond to the public comment and community input that will follow. Figure 1 below shows the timeline for the EJWG Technical Team related to the Oregon EJ mapping tool.



**Figure 1: Timeline for the DEQ EJWG Technical Team**

## Drinking Water Protection Program

The Drinking Water Protection Program has various projects in development to incorporate environmental justice into the program. One of these projects is the Small System Outreach Project. The overall goal of the project is to offer source water protection technical assistance, education, and capacity building to small drinking water system operators and community members, primarily of manufactured home communities.

As of May 2023, DEQ identified and contacted 223 small public water systems that are manufactured home communities statewide. Most of these outreach efforts consisted of emails or phone calls to the listed contact on the water system's page on [Oregon Health Authority's Drinking Water Data Online](#). The program also coordinated with the DEQ Lab on their PFAS sampling site visits to connect with operators in person and open a source water protection conversation. During the site visits, DEQ listened to drinking water concerns, discussed their Source Water Assessment and Update (if available), walked around their community to visualize potential contaminant sources, and talked about possible protection actions. This effort has already resulted in 42 manufactured home communities taking initial or substantial steps toward implantation of source water protection initiatives.

The Drinking Water Protection Program has also been establishing reoccurring gatherings for coastal communities in Oregon. These gatherings will focus on coastal land conservation topics with the goal to protect and restore drinking water source areas along Oregon's coast. DEQ will provide technical assistance and outreach as well as work to enhance community relationships. These spaces will also provide the opportunity to celebrate any source water protection efforts that communities have already done and to build upon those successes to enhance the capacity of neighboring communities. In addition, these spaces will provide a platform for communities to share their challenges and access resources, ideas, and partners to address those challenges.

The program is beginning to implement changes in how outreach to public water systems is organized by incorporating environmental justice screening tools to prioritize areas for engagement. Additionally, DEQ and OHA are prioritizing disadvantaged communities for source water protection grants.

## **Statewide Groundwater Quality Monitoring Program**

The Statewide Groundwater Monitoring Program has incorporated a lens of environmental justice during outreach, communications, sample site selections, and distribution of finished data. To equitably share the program's free groundwater quality testing opportunities the program translated outreach materials to locally relevant languages, and focused outreach communications to diverse communities by including farmer's markets, non-English radio stations, and local public events. The program also ensured that the language in our permission to access properties to sample wells includes the right for any well user to allow us to sample, even if they don't own the well or the property. This enables renters and migrant farm workers to volunteer the wells they drink from. After receiving volunteers for this program, EPA's Environmental Justice Screening Tool was used, in areas where appropriate, to consider whether the site locations selected are equitably reaching vulnerable communities who are low-income, elderly, or with small children. This program does not exclude volunteered wells that are not registered with the state, in an attempt to capture potentially vulnerable wells that may be older or not meeting well construction standards. When the data is released the project manager is available to present a summary of the data at any local community public event upon request. Infographics are created to help make data more accessible to the public.

The regional selection of basins for the studies in this statewide program is initially screened using historical and relevant environmental data layers that highlight potentially vulnerable groundwater areas throughout the state. The primary goal of this program is to collect ambient environmental data on groundwater resources statewide, but it is also to inform all groundwater users of potential risks. There is a great need for an Oregon-specific tool to highlight demographic data on groundwater users who may be most vulnerable so that this information can be distributed to the people who are at the most risk and who may need the most assistance in treating their domestic groundwater sources, or maintaining their wells or onsite systems.

## **Upper Yaquina River TMDL Project**

DEQ conducted an analysis using the EPA's Environmental Justice Screening Tool to examine if pollution reduction measures needed to address water quality impairments for bacteria and dissolved oxygen disproportionately affected under-served communities in the Upper Yaquina River Watershed. -Using census block information, we determined that potential actions to reduce pollution would not affect specific communities disproportionately within the watershed. DEQ also found that the spatial resolution of the screening tool made it difficult to align with the spatial resolution of water quality management. This suggests that development of Oregon-specific environmental justice screening tools and datasets would better inform water quality management projects in the state.



# Oregon Nonpoint Source Pollution Program Annual Report for 2022

## Appendix A: Actions Defined by the 2022 Nonpoint Source Management Plan

- TMDL-07. Other appropriate management strategies are implemented to reduce pollutant loading.
- TMDL-07-M1. Annually DEQ quantifies the count or amount of management strategies that have been completed within watersheds where TMDLs have been developed.
- TMDL-07-R1. The annual count or amount of management strategies implemented for each HUC8 subbasins with approved TMDLs. Reported annually.
- NPS-03. Best management practices and other strategies are implemented to reduce pollutant loading.
- NPS-03-M1. Annually the count or amount of practices and management strategies that have been completed in each subbasin in Oregon is reported in the nonpoint source annual report.
- NPS-03-R1. The annual count or amount of practices and management strategies implemented for each HUC8 subbasins. Reported annually.

HUC8	Subbasin	TMDL in Subbasin	Activity	Treatment Metric	Unit	Y2021	Y2022	Total
17100306	Sixes	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	0.0	36.0	36.0
17100306	Sixes	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	0.0	27.0	27.0
17100306	Sixes	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	0.0	12.0	12.0
17100306	Sixes	TRUE	Riparian vegetation planting	Area treated	acre	0.0	11.3	11.3
17100306	Sixes	TRUE	Riparian tree planting	Area treated	acre	0.0	11.3	11.3
17100306	Sixes	TRUE	Riparian fencing	Area treated	acre	0.0	6.5	6.5
17100306	Sixes	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	0.0	6.0	6.0
17100306	Sixes	TRUE	Off-channel livestock or wildlife watering	Number of treatments	watering location	0.0	5.0	5.0
17100306	Sixes	TRUE	Riparian invasive plant control	Area treated	acre	0.0	4.8	4.8

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17100306	Sixes	TRUE	Riparian vegetation planting	Length of treatment	mile	0.0	1.5	1.5
17100306	Sixes	TRUE	Riparian tree planting	Length of treatment	mile	0.0	1.5	1.5
17100306	Sixes	TRUE	Riparian invasive plant control	Length of treatment	mile	0.0	1.1	1.1
17100306	Sixes	TRUE	Riparian fencing	Length of treatment	mile	0.0	0.4	0.4
17070307	Trout	FALSE	Riparian tree planting	Area treated	acre	27.7	0.0	27.7
17050103	Middle Snake-Succor	TRUE	Irrigation system improvement	Area treated	acre	32.0	0.0	32.0
17050108	Jordan	FALSE	Irrigation system improvement	Area treated	acre	260.0	0.0	260.0
17050108	Jordan	FALSE	Irrigation system improvement	Length of treatment	feet	1760.0	0.0	1760.0
17050108	Jordan	FALSE	Riparian invasive plant control	Area treated	acre	4.0	0.0	4.0
17050108	Jordan	FALSE	Riparian invasive plant control	Length of treatment	mile	0.0	0.0	0.0
17050108	Jordan	FALSE	Upland invasive plant control	Area treated	acre	1295.5	0.0	1295.5
17050109	Crooked-Rattlesnake	FALSE	Grazing management	Area treated	acre	640.0	0.0	640.0
17050109	Crooked-Rattlesnake	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	3.0	0.0	3.0
17050109	Crooked-Rattlesnake	FALSE	Upland invasive plant control	Area treated	acre	640.0	0.0	640.0
17050109	Crooked-Rattlesnake	FALSE	Upland vegetation planting	Area treated	acre	640.0	0.0	640.0
17050110	Lower Owyhee	FALSE	Irrigation system improvement	Area treated	acre	80.0	0.0	80.0
17050115	Middle Snake-Payette	TRUE	Grazing management	Area treated	acre	324.0	0.0	324.0
17050115	Middle Snake-Payette	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	100.0	0.0	100.0
17050115	Middle Snake-Payette	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	100.0	0.0	100.0
17050115	Middle Snake-Payette	TRUE	Irrigation system improvement	Area treated	acre	31.0	0.0	31.0
17050115	Middle Snake-Payette	TRUE	Off-channel livestock or wildlife watering	Number of treatments	watering location	3.0	0.0	3.0
17050115	Middle Snake-Payette	TRUE	Upland fencing	Area treated	acre	324.0	0.0	324.0



17050115	Middle Snake-Payette	TRUE	Upland invasive plant control	Area treated	acre	615.0	0.0	615.0
17050115	Middle Snake-Payette	TRUE	Upland vegetation management	Area treated	acre	1417.0	0.0	1417.0
17050115	Middle Snake-Payette	TRUE	Upland vegetation planting	Area treated	acre	170.0	0.0	170.0
17050117	Lower Malheur	FALSE	Irrigation system improvement	Area treated	acre	286.0	0.0	286.0
17050117	Lower Malheur	FALSE	Irrigation system improvement	Length of treatment	feet	1800.0	0.0	1800.0
17050117	Lower Malheur	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	1.0	0.0	1.0
17050118	Bully	FALSE	Upland fencing	Area treated	acre	1520.0	0.0	1520.0
17050201	Brownlee Reservoir	TRUE	Irrigation system improvement	Area treated	acre	120.0	0.0	120.0
17050201	Brownlee Reservoir	TRUE	Irrigation system improvement	Length of treatment	feet	570.0	0.0	570.0
17050201	Brownlee Reservoir	TRUE	Off-channel livestock or wildlife watering	Number of treatments	watering location	3.0	0.0	3.0
17050202	Burnt	FALSE	Riparian invasive plant control	Area treated	acre	150.0	0.0	150.0
17050202	Burnt	FALSE	Riparian invasive plant control	Length of treatment	mile	15.0	0.0	15.0
17050202	Burnt	FALSE	Upland invasive plant control	Area treated	acre	2579.0	0.0	2579.0
17050203	Powder	FALSE	Grazing management	Area treated	acre	1000.0	0.0	1000.0
17050203	Powder	FALSE	Riparian invasive plant control	Area treated	acre	10.0	0.0	10.0
17050203	Powder	FALSE	Riparian invasive plant control	Length of treatment	mile	1.0	0.0	1.0
17050203	Powder	FALSE	Upland fencing	Area treated	acre	500.0	0.0	500.0
17050203	Powder	FALSE	Upland invasive plant control	Area treated	acre	3111.1	0.0	3111.1
17050203	Powder	FALSE	Upland vegetation planting	Area treated	acre	1024.0	0.0	1024.0
17060102	Imnaha	TRUE	Riparian invasive plant control	Area treated	acre	3.2	0.0	3.2
17060102	Imnaha	TRUE	Riparian invasive plant control	Length of treatment	mile	2.0	0.0	2.0
17060102	Imnaha	TRUE	Upland invasive plant control	Area treated	acre	1453.3	0.0	1453.3
17060104	Upper Grande Ronde	TRUE	Bank stabilization	Length of treatment	mile	0.9	0.0	0.9
17060104	Upper Grande Ronde	TRUE	Channel alteration	Length of treatment	feet	2850.0	0.0	2850.0

17060104	Upper Grande Ronde	TRUE	Channel alteration	Number of treatments	main channel	1.0	0.0	1.0
17060104	Upper Grande Ronde	TRUE	Channel alteration	Number of treatments	pool	21.0	0.0	21.0
17060104	Upper Grande Ronde	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	141.0	0.0	141.0
17060104	Upper Grande Ronde	TRUE	Instream habitat (not anchored): Boulder placement	Number of treatments	boulder	360.0	0.0	360.0
17060104	Upper Grande Ronde	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	29.0	0.0	29.0
17060104	Upper Grande Ronde	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	10.0	0.0	10.0
17060104	Upper Grande Ronde	TRUE	Off-channel habitat	Length of treatment	feet	7250.0	0.0	7250.0
17060104	Upper Grande Ronde	TRUE	Off-channel habitat	Number of treatments	alcove	3.0	0.0	3.0
17060104	Upper Grande Ronde	TRUE	Off-channel habitat	Number of treatments	side channel	5.0	0.0	5.0
17060104	Upper Grande Ronde	TRUE	Riparian fencing	Area treated	acre	31.8	0.0	31.8
17060104	Upper Grande Ronde	TRUE	Riparian fencing	Length of treatment	mile	0.5	0.0	0.5
17060104	Upper Grande Ronde	TRUE	Riparian invasive plant control	Area treated	acre	25.5	0.0	25.5
17060104	Upper Grande Ronde	TRUE	Riparian invasive plant control	Length of treatment	mile	17.0	0.0	17.0
17090007	Middle Willamette	TRUE	Riparian tree planting	Area treated	acre	25.0	0.0	25.0
17100204	Siletz-Yaquina	FALSE	Riparian tree planting	Area treated	acre	10.0	0.0	10.0
17060104	Upper Grande Ronde	TRUE	Upland fencing	Area treated	acre	1.1	0.0	1.1
17060104	Upper Grande Ronde	TRUE	Upland invasive plant control	Area treated	acre	338.6	0.0	338.6
17060105	Wallowa	TRUE	Channel alteration	Length of treatment	feet	1500.0	0.0	1500.0
17060105	Wallowa	TRUE	Channel alteration	Number of treatments	main channel	1.0	0.0	1.0

17060105	Wallowa	TRUE	Instream habitat (not anchored): Boulder placement	Number of treatments	boulder	200.0	0.0	200.0
17060105	Wallowa	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	20.0	0.0	20.0
17060105	Wallowa	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	20.0	0.0	20.0
17060105	Wallowa	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	5.0	0.0	5.0
17060105	Wallowa	TRUE	Off-channel habitat	Length of treatment	feet	1350.0	0.0	1350.0
17060105	Wallowa	TRUE	Off-channel habitat	Number of treatments	alcove	2.0	0.0	2.0
17060105	Wallowa	TRUE	Off-channel habitat	Number of treatments	side channel	3.0	0.0	3.0
17060105	Wallowa	TRUE	Riparian invasive plant control	Area treated	acre	126.0	0.0	126.0
17060105	Wallowa	TRUE	Riparian invasive plant control	Length of treatment	mile	20.8	0.0	20.8
17060105	Wallowa	TRUE	Riparian vegetation planting	Area treated	acre	2.0	0.0	2.0
17060105	Wallowa	TRUE	Riparian vegetation planting	Length of treatment	mile	0.3	0.0	0.3
17060105	Wallowa	TRUE	Upland invasive plant control	Area treated	acre	1133.4	0.0	1133.4
17060105	Wallowa	TRUE	Wetland vegetation planting	Area treated	acre	1.0	0.0	1.0
17060106	Lower Grande Ronde	TRUE	Upland invasive plant control	Area treated	acre	1376.0	0.0	1376.0
17070101	Middle Columbia-Lake Wallua	TRUE	Riparian invasive plant control	Area treated	acre	29.0	0.0	29.0
17070101	Middle Columbia-Lake Wallua	TRUE	Riparian invasive plant control	Length of treatment	mile	3.0	0.0	3.0
17070101	Middle Columbia-Lake Wallua	TRUE	Riparian vegetation planting	Area treated	acre	28.0	0.0	28.0
17070101	Middle Columbia-Lake Wallua	TRUE	Riparian vegetation planting	Length of treatment	mile	1.0	0.0	1.0
17070101	Middle Columbia-Lake Wallua	TRUE	Upland invasive plant control	Area treated	acre	82.0	0.0	82.0
17070101	Middle Columbia-Lake Wallua	TRUE	Upland vegetation planting	Area treated	acre	30.0	0.0	30.0

17070101	Middle Columbia-Lake Wallua	TRUE	Wetland improvement	Area treated	acre	65.5	0.0	65.5
17070101	Middle Columbia-Lake Wallua	TRUE	Wetland invasive plant control	Area treated	acre	40.0	0.0	40.0
17070101	Middle Columbia-Lake Wallua	TRUE	Wetland vegetation planting	Area treated	acre	40.0	0.0	40.0
17070102	Walla Walla	TRUE	Upland invasive plant control	Area treated	acre	4.0	0.0	4.0
17070104	Willow	TRUE	Nutrient/manure management	Area treated	acre	0.0	0.0	0.0
17070104	Willow	TRUE	Riparian fencing	Area treated	acre	13.0	0.0	13.0
17070104	Willow	TRUE	Riparian fencing	Length of treatment	mile	0.1	0.0	0.1
17100203	Wilson-Trask-Nestucca	TRUE	Riparian tree planting	Area treated	acre	15.2	0.0	15.2
17090003	Upper Willamette	TRUE	Riparian tree planting	Area treated	acre	7.2	0.0	7.2
17070104	Willow	TRUE	Upland invasive plant control	Area treated	acre	42.0	0.0	42.0
17070105	Middle Columbia-Hood	TRUE	Engineered structures	Number of treatments	structure	4.0	0.0	4.0
17070105	Middle Columbia-Hood	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	7.0	0.0	7.0
17070105	Middle Columbia-Hood	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	36.0	0.0	36.0
17070105	Middle Columbia-Hood	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	6.0	0.0	6.0
17070105	Middle Columbia-Hood	TRUE	Instream invasive plant control	Length of treatment	mile	2.8	0.0	2.8
17070105	Middle Columbia-Hood	TRUE	Irrigation system improvement	Area treated	acre	6.9	0.0	6.9
17070105	Middle Columbia-Hood	TRUE	Off-channel habitat	Length of treatment	feet	1600.0	0.0	1600.0
17070105	Middle Columbia-Hood	TRUE	Off-channel habitat	Number of treatments	off-channel pond	4.0	0.0	4.0
17070105	Middle Columbia-Hood	TRUE	Off-channel habitat	Number of treatments	side channel	3.0	0.0	3.0
17070105	Middle Columbia-Hood	TRUE	Riparian fencing	Area treated	acre	18.0	0.0	18.0

17070105	Middle Columbia-Hood	TRUE	Riparian fencing	Length of treatment	mile	0.3	0.0	0.3
17070105	Middle Columbia-Hood	TRUE	Riparian invasive plant control	Area treated	acre	5.0	0.0	5.0
17070105	Middle Columbia-Hood	TRUE	Riparian invasive plant control	Length of treatment	mile	0.2	0.0	0.2
17070105	Middle Columbia-Hood	TRUE	Riparian vegetation planting	Area treated	acre	5.0	0.0	5.0
17070105	Middle Columbia-Hood	TRUE	Riparian vegetation planting	Length of treatment	mile	0.2	0.0	0.2
17070105	Middle Columbia-Hood	TRUE	Wetland invasive plant control	Area treated	acre	0.5	0.0	0.5
17070201	Upper John Day	TRUE	Fish screening	Number of treatments	fish screen	3.0	0.0	3.0
17070201	Upper John Day	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	32.0	0.0	32.0
17070201	Upper John Day	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	8.0	0.0	8.0
17070201	Upper John Day	TRUE	Non-crossing improvement	Number of treatments	push-up dam	2.0	0.0	2.0
17070201	Upper John Day	TRUE	Off-channel livestock or wildlife watering	Number of treatments	watering location	2.0	0.0	2.0
17070201	Upper John Day	TRUE	Riparian fencing	Area treated	acre	12.2	0.0	12.2
17070201	Upper John Day	TRUE	Riparian fencing	Length of treatment	mile	0.8	0.0	0.8
17070201	Upper John Day	TRUE	Upland vegetation management	Area treated	acre	180.0	0.0	180.0
17070202	North Fork John Day	TRUE	Bank stabilization	Length of treatment	mile	0.1	0.0	0.1
17070202	North Fork John Day	TRUE	Bank stabilization	Number of treatments	side	2.0	0.0	2.0
17070202	North Fork John Day	TRUE	Crossing improvement	Number of treatments	bridge	1.0	0.0	1.0
17070202	North Fork John Day	TRUE	Crossing improvement	Number of treatments	ford	2.0	0.0	2.0
17070202	North Fork John Day	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	261.0	0.0	261.0
17070202	North Fork John Day	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	132.0	0.0	132.0

17070202	North Fork John Day	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	66.0	0.0	66.0
17070202	North Fork John Day	TRUE	Off-channel habitat	Length of treatment	feet	3334.0	0.0	3334.0
17070202	North Fork John Day	TRUE	Off-channel habitat	Number of treatments	alcove	2.0	0.0	2.0
17070202	North Fork John Day	TRUE	Off-channel habitat	Number of treatments	side channel	11.0	0.0	11.0
17070202	North Fork John Day	TRUE	Riparian fencing	Area treated	acre	85.3	0.0	85.3
17070202	North Fork John Day	TRUE	Riparian fencing	Length of treatment	mile	1.6	0.0	1.6
17070202	North Fork John Day	TRUE	Riparian invasive plant control	Area treated	acre	43.5	0.0	43.5
17070202	North Fork John Day	TRUE	Riparian invasive plant control	Length of treatment	mile	9.9	0.0	9.9
17070202	North Fork John Day	TRUE	Riparian tree planting	Area treated	acre	7.1	0.0	7.1
17070202	North Fork John Day	TRUE	Riparian vegetation management	Area treated	acre	28.3	0.0	28.3
17070202	North Fork John Day	TRUE	Riparian vegetation management	Length of treatment	mile	0.5	0.0	0.5
17070202	North Fork John Day	TRUE	Upland invasive plant control	Area treated	acre	0.5	0.0	0.5
17070202	North Fork John Day	TRUE	Upland vegetation management	Area treated	acre	108.8	0.0	108.8
17070202	North Fork John Day	TRUE	Wetland improvement	Area treated	acre	1.7	0.0	1.7
17070202	North Fork John Day	TRUE	Wetland invasive plant control	Area treated	acre	3.3	0.0	3.3
17070202	North Fork John Day	TRUE	Wetland vegetation planting	Area treated	acre	2.1	0.0	2.1
17070203	Middle Fork John Day	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	225.0	0.0	225.0
17070203	Middle Fork John Day	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	45.0	0.0	45.0
17070203	Middle Fork John Day	TRUE	Non-crossing improvement	Number of treatments	structure	1.0	0.0	1.0
17070203	Middle Fork John Day	TRUE	Off-channel habitat	Length of treatment	feet	1000.0	0.0	1000.0
17070203	Middle Fork John Day	TRUE	Off-channel habitat	Number of treatments	side channel	15.0	0.0	15.0
17070203	Middle Fork John Day	TRUE	Riparian fencing	Area treated	acre	61.6	0.0	61.6
17070203	Middle Fork John Day	TRUE	Riparian fencing	Length of treatment	mile	3.9	0.0	3.9
17070203	Middle Fork John Day	TRUE	Riparian vegetation planting	Area treated	acre	8.0	0.0	8.0

17070203	Middle Fork John Day	TRUE	Riparian vegetation planting	Length of treatment	mile	0.8	0.0	0.8
17070203	Middle Fork John Day	TRUE	Upland fencing	Area treated	acre	632.1	0.0	632.1
17070203	Middle Fork John Day	TRUE	Upland invasive plant control	Area treated	acre	38.0	0.0	38.0
17070204	Lower John Day	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	107.0	0.0	107.0
17070204	Lower John Day	TRUE	Off-channel livestock or wildlife watering	Number of treatments	watering location	5.0	0.0	5.0
17070204	Lower John Day	TRUE	Riparian fencing	Area treated	acre	322.0	0.0	322.0
17070204	Lower John Day	TRUE	Riparian fencing	Length of treatment	mile	5.0	0.0	5.0
17070204	Lower John Day	TRUE	Upland invasive plant control	Area treated	acre	398.4	0.0	398.4
17070204	Lower John Day	TRUE	Upland vegetation management	Area treated	acre	26.0	0.0	26.0
17070301	Upper Deschutes	FALSE	Fish screening	Number of treatments	fish screen	1.0	0.0	1.0
17070301	Upper Deschutes	FALSE	Non-crossing improvement	Number of treatments	diversion dam	1.0	0.0	1.0
17070301	Upper Deschutes	FALSE	Riparian invasive plant control	Area treated	acre	4.0	0.0	4.0
17070301	Upper Deschutes	FALSE	Riparian invasive plant control	Length of treatment	mile	0.1	0.0	0.1
17070301	Upper Deschutes	FALSE	Riparian vegetation planting	Area treated	acre	0.2	0.0	0.2
17070301	Upper Deschutes	FALSE	Riparian vegetation planting	Length of treatment	mile	0.1	0.0	0.1
17070301	Upper Deschutes	FALSE	Upland invasive plant control	Area treated	acre	158.9	0.0	158.9
17070304	Upper Crooked	FALSE	Upland invasive plant control	Area treated	acre	42.5	0.0	42.5
17070305	Lower Crooked	FALSE	Irrigation system improvement	Area treated	acre	32.2	0.0	32.2
17070305	Lower Crooked	FALSE	Irrigation system improvement	Length of treatment	feet	3380.0	0.0	3380.0
17070305	Lower Crooked	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	1.0	0.0	1.0
17070305	Lower Crooked	FALSE	Upland invasive plant control	Area treated	acre	4.3	0.0	4.3
17070306	Lower Deschutes	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	1.0	0.0	1.0
17070306	Lower Deschutes	FALSE	Riparian invasive plant control	Area treated	acre	147.0	0.0	147.0
17070306	Lower Deschutes	FALSE	Riparian invasive plant control	Length of treatment	mile	38.1	0.0	38.1
17070306	Lower Deschutes	FALSE	Upland fencing	Area treated	acre	3390.0	0.0	3390.0

17070306	Lower Deschutes	FALSE	Upland fencing	Length of treatment	mile	1.5	0.0	1.5
17070306	Lower Deschutes	FALSE	Upland invasive plant control	Area treated	acre	44.2	0.0	44.2
17070306	Lower Deschutes	FALSE	Upland vegetation management	Area treated	acre	106.8	0.0	106.8
17070307	Trout	FALSE	Channel alteration	Length of treatment	feet	5300.0	0.0	5300.0
17070307	Trout	FALSE	Channel alteration	Number of treatments	main channel	1.0	0.0	1.0
17070307	Trout	FALSE	Crossing improvement	Number of treatments	culvert	1.0	0.0	1.0
17070307	Trout	FALSE	Crossing improvement	Number of treatments	ford	1.0	0.0	1.0
17070307	Trout	FALSE	Instream habitat (anchored): Structure placement	Number of treatments	structure	47.0	0.0	47.0
17070307	Trout	FALSE	Instream habitat (not anchored): Boulder placement	Number of treatments	boulder	60.0	0.0	60.0
17070307	Trout	FALSE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	5.0	0.0	5.0
17070307	Trout	FALSE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	4.0	0.0	4.0
17070307	Trout	FALSE	Livestock stream access/crossing created or improved	Area treated	acre	0.1	0.0	0.1
17070307	Trout	FALSE	Livestock stream access/crossing created or improved	Number of treatments	crossing	1.0	0.0	1.0
17070307	Trout	FALSE	Off-channel habitat	Number of treatments	off-channel pond	1.0	0.0	1.0
17070307	Trout	FALSE	Riparian fencing	Area treated	acre	27.7	0.0	27.7
17070307	Trout	FALSE	Riparian fencing	Length of treatment	mile	1.1	0.0	1.1
17070307	Trout	FALSE	Riparian invasive plant control	Area treated	acre	55.7	0.0	55.7
17070307	Trout	FALSE	Riparian invasive plant control	Length of treatment	mile	8.1	0.0	8.1
17100206	Siuslaw	TRUE	Riparian tree planting	Area treated	acre	2.2	0.0	2.2
17080001	Lower Columbia-Sandy	TRUE	Riparian tree planting	Area treated	acre	2.0	0.0	2.0
17070307	Trout	FALSE	Riparian vegetation management	Area treated	acre	27.7	0.0	27.7
17070307	Trout	FALSE	Riparian vegetation management	Length of treatment	mile	1.1	0.0	1.1
17070307	Trout	FALSE	Riparian vegetation planting	Area treated	acre	27.7	0.0	27.7



17070307	Trout	FALSE	Riparian vegetation planting	Length of treatment	mile	1.1	0.0	1.1
17070307	Trout	FALSE	Upland invasive plant control	Area treated	acre	340.0	0.0	340.0
17070307	Trout	FALSE	Upland vegetation management	Area treated	acre	100.0	0.0	100.0
17080001	Lower Columbia-Sandy	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	4.0	0.0	4.0
17080001	Lower Columbia-Sandy	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	515.0	0.0	515.0
17080001	Lower Columbia-Sandy	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	300.0	0.0	300.0
17080001	Lower Columbia-Sandy	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	33.0	0.0	33.0
17080001	Lower Columbia-Sandy	TRUE	Off-channel habitat	Length of treatment	feet	3591.0	0.0	3591.0
17080001	Lower Columbia-Sandy	TRUE	Off-channel habitat	Number of treatments	off-channel pond	1.0	0.0	1.0
17080001	Lower Columbia-Sandy	TRUE	Off-channel habitat	Number of treatments	side channel	3.0	0.0	3.0
17080001	Lower Columbia-Sandy	TRUE	Riparian invasive plant control	Area treated	acre	3.0	0.0	3.0
17080001	Lower Columbia-Sandy	TRUE	Riparian invasive plant control	Length of treatment	mile	0.1	0.0	0.1
17090008	Yamhill	TRUE	Riparian tree planting	Area treated	acre	2.0	0.0	2.0
17100205	Alsea	FALSE	Riparian tree planting	Area treated	acre	1.8	0.0	1.8
17080003	Lower Columbia-Clatskanie	TRUE	Riparian invasive plant control	Area treated	acre	2.3	0.0	2.3
17080003	Lower Columbia-Clatskanie	TRUE	Riparian invasive plant control	Length of treatment	mile	0.5	0.0	0.5
17100309	Applegate	TRUE	Riparian tree planting	Area treated	acre	2.0	0.0	2.0
17100204	Siletz-Yaquina	FALSE	Riparian tree planting	Length of treatment	mile	1.2	0.0	1.2
17080006	Lower Columbia	TRUE	Estuarine invasive plant control	Area treated	acre	5.0	0.0	5.0
17080006	Lower Columbia	TRUE	Upland invasive plant control	Area treated	acre	108.5	0.0	108.5

17090001	Middle Fork Willamette	TRUE	Riparian invasive plant control	Area treated	acre	0.2	0.0	0.2
17090001	Middle Fork Willamette	TRUE	Riparian invasive plant control	Length of treatment	mile	0.1	0.0	0.1
17090001	Middle Fork Willamette	TRUE	Upland invasive plant control	Area treated	acre	4.6	0.0	4.6
17090001	Middle Fork Willamette	TRUE	Upland vegetation planting	Area treated	acre	4.6	0.0	4.6
17090003	Upper Willamette	TRUE	Instream invasive plant control	Length of treatment	mile	1.7	0.0	1.7
17090003	Upper Willamette	TRUE	Nutrient/manure management	Area treated	acre	0.0	0.0	0.0
17090003	Upper Willamette	TRUE	Riparian fencing	Area treated	acre	0.3	0.0	0.3
17090003	Upper Willamette	TRUE	Riparian fencing	Length of treatment	mile	0.1	0.0	0.1
17090003	Upper Willamette	TRUE	Riparian invasive plant control	Area treated	acre	7.0	0.0	7.0
17090003	Upper Willamette	TRUE	Riparian invasive plant control	Length of treatment	mile	0.4	0.0	0.4
17080003	Lower Columbia-Clatskanie	TRUE	Riparian tree planting	Area treated	acre	1.7	0.0	1.7
17100203	Wilson-Trask-Nestucca	TRUE	Riparian tree planting	Length of treatment	mile	3.7	0.0	3.7
17090003	Upper Willamette	TRUE	Riparian vegetation management	Number of treatments	site	1.0	0.0	1.0
17090003	Upper Willamette	TRUE	Riparian vegetation planting	Area treated	acre	7.2	0.0	7.2
17090003	Upper Willamette	TRUE	Riparian vegetation planting	Length of treatment	mile	0.5	0.0	0.5
17090003	Upper Willamette	TRUE	Sustainable stormwater management	Area treated	acre	2.3	0.0	2.3
17090003	Upper Willamette	TRUE	Sustainable stormwater management	Number of treatments	each	1.0	0.0	1.0
17090003	Upper Willamette	TRUE	Upland invasive plant control	Area treated	acre	2.0	0.0	2.0
17090004	McKenzie	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	100.0	0.0	100.0
17090004	McKenzie	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	316.0	0.0	316.0
17090004	McKenzie	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	15.0	0.0	15.0
17090005	North Santiam	TRUE	Peak flow passage improvement	Number of treatments	structure	28.0	0.0	28.0

17090005	North Santiam	TRUE	Riparian invasive plant control	Area treated	acre	26.0	0.0	26.0
17090005	North Santiam	TRUE	Riparian invasive plant control	Length of treatment	mile	0.4	0.0	0.4
17090005	North Santiam	TRUE	Riparian vegetation planting	Area treated	acre	26.0	0.0	26.0
17090005	North Santiam	TRUE	Riparian vegetation planting	Length of treatment	mile	0.4	0.0	0.4
17090005	North Santiam	TRUE	Road stabilization	Length of treatment	station	1.0	0.0	1.0
17090005	North Santiam	TRUE	Surface drainage improvement	Length of treatment	station	192.8	0.0	192.8
17090005	North Santiam	TRUE	Surface drainage improvement	Number of treatments	culvert	3.0	0.0	3.0
17090005	North Santiam	TRUE	Surface drainage improvement	Number of treatments	structure	1.0	0.0	1.0
17090005	North Santiam	TRUE	Wetland invasive plant control	Area treated	acre	18.0	0.0	18.0
17090007	Middle Willamette	TRUE	Channel alteration	Length of treatment	feet	528.0	0.0	528.0
17090007	Middle Willamette	TRUE	Channel alteration	Number of treatments	main channel	1.0	0.0	1.0
17090007	Middle Willamette	TRUE	Instream invasive plant control	Length of treatment	mile	1.0	0.0	1.0
17090007	Middle Willamette	TRUE	Riparian invasive plant control	Area treated	acre	25.0	0.0	25.0
17090007	Middle Willamette	TRUE	Riparian invasive plant control	Length of treatment	mile	0.5	0.0	0.5
17070307	Trout	FALSE	Riparian tree planting	Length of treatment	mile	1.1	0.0	1.1
17090012	Lower Willamette	TRUE	Riparian tree planting	Area treated	acre	1.2	0.0	1.2
17090007	Middle Willamette	TRUE	Riparian vegetation planting	Area treated	acre	25.0	0.0	25.0
17090007	Middle Willamette	TRUE	Riparian vegetation planting	Length of treatment	mile	0.5	0.0	0.5
17090007	Middle Willamette	TRUE	Upland invasive plant control	Area treated	acre	13.5	0.0	13.5
17090007	Middle Willamette	TRUE	Upland vegetation management	Area treated	acre	8.5	0.0	8.5
17090007	Middle Willamette	TRUE	Upland vegetation planting	Area treated	acre	13.5	0.0	13.5
17090007	Middle Willamette	TRUE	Wetland invasive plant control	Area treated	acre	36.5	0.0	36.5
17090007	Middle Willamette	TRUE	Wetland vegetation planting	Area treated	acre	35.0	0.0	35.0
17090008	Yamhill	TRUE	Crossing improvement	Number of treatments	culvert	3.0	0.0	3.0
17090008	Yamhill	TRUE	Irrigation system improvement	Area treated	acre	3.3	0.0	3.3
17090008	Yamhill	TRUE	Peak flow passage improvement	Number of treatments	structure	3.0	0.0	3.0

17090008	Yamhill	TRUE	Riparian invasive plant control	Area treated	acre	9.3	0.0	9.3
17090008	Yamhill	TRUE	Riparian invasive plant control	Length of treatment	mile	2.6	0.0	2.6
17070104	Willow	TRUE	Riparian tree planting	Area treated	acre	1.0	0.0	1.0
17100202	Nehalem	TRUE	Riparian tree planting	Area treated	acre	1.0	0.0	1.0
17090008	Yamhill	TRUE	Riparian vegetation planting	Area treated	acre	2.0	0.0	2.0
17090008	Yamhill	TRUE	Riparian vegetation planting	Length of treatment	mile	0.1	0.0	0.1
17090008	Yamhill	TRUE	Upland invasive plant control	Area treated	acre	10.2	0.0	10.2
17090008	Yamhill	TRUE	Upland tree planting	Area treated	acre	7.5	0.0	7.5
17090008	Yamhill	TRUE	Upland vegetation planting	Area treated	acre	7.7	0.0	7.7
17090009	Molalla-Pudding	TRUE	Peak flow passage improvement	Number of treatments	structure	20.0	0.0	20.0
17090009	Molalla-Pudding	TRUE	Surface drainage improvement	Length of treatment	station	24.3	0.0	24.3
17090009	Molalla-Pudding	TRUE	Surface drainage improvement	Number of treatments	culvert	7.0	0.0	7.0
17090009	Molalla-Pudding	TRUE	Surface drainage improvement	Number of treatments	structure	2.0	0.0	2.0
17090011	Clackamas	TRUE	Crossing improvement	Number of treatments	culvert	1.0	0.0	1.0
17090012	Lower Willamette	TRUE	Fish screening	Number of treatments	fish screen	1.0	0.0	1.0
17090012	Lower Willamette	TRUE	Riparian invasive plant control	Area treated	acre	3.5	0.0	3.5
17090012	Lower Willamette	TRUE	Riparian invasive plant control	Length of treatment	mile	8.8	0.0	8.8
17070202	North Fork John Day	TRUE	Riparian tree planting	Length of treatment	mile	1.1	0.0	1.1
17090007	Middle Willamette	TRUE	Riparian tree planting	Length of treatment	mile	0.5	0.0	0.5
17090012	Lower Willamette	TRUE	Riparian vegetation planting	Area treated	acre	0.9	0.0	0.9
17090012	Lower Willamette	TRUE	Riparian vegetation planting	Length of treatment	mile	0.2	0.0	0.2
17090012	Lower Willamette	TRUE	Upland invasive plant control	Area treated	acre	12.9	0.0	12.9
17090012	Lower Willamette	TRUE	Upland tree planting	Area treated	acre	2.9	0.0	2.9
17090012	Lower Willamette	TRUE	Upland vegetation planting	Area treated	acre	5.7	0.0	5.7
17090012	Lower Willamette	TRUE	Wetland invasive plant control	Area treated	acre	0.1	0.0	0.1
17090012	Lower Willamette	TRUE	Wetland vegetation planting	Area treated	acre	0.1	0.0	0.1
17100202	Nehalem	TRUE	Crossing improvement	Number of treatments	culvert	1.0	0.0	1.0

17100202	Nehalem	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	2.0	0.0	2.0
17100202	Nehalem	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	59.0	0.0	59.0
17100202	Nehalem	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	36.0	0.0	36.0
17100202	Nehalem	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	17.0	0.0	17.0
17100202	Nehalem	TRUE	Peak flow passage improvement	Number of treatments	structure	5.0	0.0	5.0
17100202	Nehalem	TRUE	Riparian invasive plant control	Area treated	acre	1.0	0.0	1.0
17100202	Nehalem	TRUE	Riparian invasive plant control	Length of treatment	mile	0.3	0.0	0.3
17080003	Lower Columbia-Clatskanie	TRUE	Riparian tree planting	Length of treatment	mile	0.5	0.0	0.5
17100308	Middle Rogue	TRUE	Riparian tree planting	Length of treatment	mile	0.5	0.0	0.5
17100202	Nehalem	TRUE	Surface drainage improvement	Number of treatments	structure	1.0	0.0	1.0
17100203	Wilson-Trask-Nestucca	TRUE	Crossing improvement	Number of treatments	bridge	2.0	0.0	2.0
17100203	Wilson-Trask-Nestucca	TRUE	Riparian invasive plant control	Area treated	acre	21.6	0.0	21.6
17100203	Wilson-Trask-Nestucca	TRUE	Riparian invasive plant control	Length of treatment	mile	8.6	0.0	8.6
17090003	Upper Willamette	TRUE	Riparian tree planting	Length of treatment	mile	0.5	0.0	0.5
17100205	Alsea	FALSE	Riparian tree planting	Length of treatment	mile	0.3	0.0	0.3
17100203	Wilson-Trask-Nestucca	TRUE	Riparian vegetation planting	Area treated	acre	15.3	0.0	15.3
17100203	Wilson-Trask-Nestucca	TRUE	Riparian vegetation planting	Length of treatment	mile	3.8	0.0	3.8
17100203	Wilson-Trask-Nestucca	TRUE	Road decommission	Length of treatment	station	19.4	0.0	19.4
17100204	Siletz-Yaquina	FALSE	Bank stabilization	Length of treatment	mile	0.2	0.0	0.2
17100204	Siletz-Yaquina	FALSE	Livestock stream access/crossing created or improved	Area treated	acre	0.2	0.0	0.2
17100204	Siletz-Yaquina	FALSE	Livestock stream access/crossing created or improved	Number of treatments	crossing	2.0	0.0	2.0
17100204	Siletz-Yaquina	FALSE	Peak flow passage improvement	Number of treatments	structure	1.0	0.0	1.0

17100204	Siletz-Yaquina	FALSE	Riparian fencing	Area treated	acre	10.0	0.0	10.0
17100204	Siletz-Yaquina	FALSE	Riparian fencing	Length of treatment	mile	1.2	0.0	1.2
17100204	Siletz-Yaquina	FALSE	Riparian invasive plant control	Area treated	acre	2.2	0.0	2.2
17100204	Siletz-Yaquina	FALSE	Riparian invasive plant control	Length of treatment	mile	0.6	0.0	0.6
17100202	Nehalem	TRUE	Riparian tree planting	Length of treatment	mile	0.3	0.0	0.3
17100206	Siuslaw	TRUE	Riparian tree planting	Length of treatment	mile	0.2	0.0	0.2
17100204	Siletz-Yaquina	FALSE	Riparian vegetation planting	Area treated	acre	10.0	0.0	10.0
17100204	Siletz-Yaquina	FALSE	Riparian vegetation planting	Length of treatment	mile	1.2	0.0	1.2
17100204	Siletz-Yaquina	FALSE	Salmon carcass placement	Length of treatment	mile	4.5	0.0	4.5
17100204	Siletz-Yaquina	FALSE	Salmon carcass placement	Number of treatments	pound	2800.0	0.0	2800.0
17100204	Siletz-Yaquina	FALSE	Salmon carcass placement	Number of treatments	salmon carcass	234.0	0.0	234.0
17100204	Siletz-Yaquina	FALSE	Salmon carcass placement	Number of treatments	site	5.0	0.0	5.0
17100204	Siletz-Yaquina	FALSE	Surface drainage improvement	Number of treatments	structure	2.0	0.0	2.0
17100204	Siletz-Yaquina	FALSE	Upland invasive plant control	Area treated	acre	15.0	0.0	15.0
17100205	Alsea	FALSE	Crossing improvement	Number of treatments	bridge	1.0	0.0	1.0
17100205	Alsea	FALSE	Crossing improvement	Number of treatments	culvert	2.0	0.0	2.0
17100205	Alsea	FALSE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	25.0	0.0	25.0
17100205	Alsea	FALSE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	5.0	0.0	5.0
17070104	Willow	TRUE	Riparian tree planting	Length of treatment	mile	0.1	0.0	0.1
17090008	Yamhill	TRUE	Riparian tree planting	Length of treatment	mile	0.1	0.0	0.1
17100206	Siuslaw	TRUE	Riparian fencing	Area treated	acre	0.9	0.0	0.9
17100206	Siuslaw	TRUE	Riparian fencing	Length of treatment	mile	0.2	0.0	0.2
17100308	Middle Rogue	TRUE	Riparian tree planting	Area treated	acre	1.0	0.0	1.0
17090012	Lower Willamette	TRUE	Riparian tree planting	Length of treatment	mile	0.1	0.0	0.1
17100206	Siuslaw	TRUE	Voluntary riparian tree retention	Area treated	acre	5.6	0.0	5.6

17100206	Siuslaw	TRUE	Voluntary riparian tree retention	Length of treatment	mile	0.6	0.0	0.6
17100301	North Umpqua	TRUE	Voluntary riparian tree retention	Area treated	acre	30.5	0.0	30.5
17100301	North Umpqua	TRUE	Voluntary riparian tree retention	Length of treatment	mile	0.6	0.0	0.6
17100302	South Umpqua	TRUE	Upland invasive plant control	Area treated	acre	4.0	0.0	4.0
17100302	South Umpqua	TRUE	Voluntary riparian tree retention	Area treated	acre	12.0	0.0	12.0
17100302	South Umpqua	TRUE	Voluntary riparian tree retention	Length of treatment	mile	0.8	0.0	0.8
17100303	Umpqua	TRUE	Instream habitat (not anchored): Boulder placement	Number of treatments	boulder	2160.0	0.0	2160.0
17100303	Umpqua	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	1485.0	0.0	1485.0
17100303	Umpqua	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	2282.0	0.0	2282.0
17100303	Umpqua	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	290.0	0.0	290.0
17100303	Umpqua	TRUE	Livestock stream access/crossing created or improved	Area treated	acre	0.2	0.0	0.2
17100303	Umpqua	TRUE	Livestock stream access/crossing created or improved	Number of treatments	crossing	2.0	0.0	2.0
17100303	Umpqua	TRUE	Nutrient/manure management	Area treated	acre	0.1	0.0	0.1
17100303	Umpqua	TRUE	Nutrient/manure management	Number of treatments	structure	1.0	0.0	1.0
17100303	Umpqua	TRUE	Riparian fencing	Area treated	acre	1.7	0.0	1.7
17100303	Umpqua	TRUE	Riparian fencing	Length of treatment	mile	0.3	0.0	0.3
17100303	Umpqua	TRUE	Riparian vegetation planting	Area treated	acre	0.1	0.0	0.1
17100303	Umpqua	TRUE	Riparian vegetation planting	Length of treatment	mile	0.3	0.0	0.3
17100303	Umpqua	TRUE	Upland erosion control	Area treated	acre	0.3	0.0	0.3
17100303	Umpqua	TRUE	Upland fencing	Area treated	acre	2.2	0.0	2.2
17100303	Umpqua	TRUE	Voluntary riparian tree retention	Area treated	acre	17.6	0.0	17.6
17100303	Umpqua	TRUE	Voluntary riparian tree retention	Length of treatment	mile	1.3	0.0	1.3
17100304	Coos	TRUE	Crossing improvement	Number of treatments	bridge	3.0	0.0	3.0

17100304	Coos	TRUE	Crossing improvement	Number of treatments	culvert	5.0	0.0	5.0
17100304	Coos	TRUE	Instream habitat (anchored): Structure placement	Number of treatments	structure	9.0	0.0	9.0
17100304	Coos	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	50.0	0.0	50.0
17100304	Coos	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	54.0	0.0	54.0
17100304	Coos	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	22.0	0.0	22.0
17100304	Coos	TRUE	Non-crossing improvement	Number of treatments	diversion	1.0	0.0	1.0
17100304	Coos	TRUE	Peak flow passage improvement	Number of treatments	structure	2.0	0.0	2.0
17100304	Coos	TRUE	Road relocation	Length of treatment	station	5.0	0.0	5.0
17100305	Coquille	TRUE	Crossing improvement	Number of treatments	bridge	1.0	0.0	1.0
17100305	Coquille	TRUE	Crossing improvement	Number of treatments	culvert	11.0	0.0	11.0
17100305	Coquille	TRUE	Instream habitat (not anchored): Boulder placement	Number of treatments	boulder	182.0	0.0	182.0
17100305	Coquille	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	183.0	0.0	183.0
17100305	Coquille	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	70.0	0.0	70.0
17100305	Coquille	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	41.0	0.0	41.0
17100305	Coquille	TRUE	Peak flow passage improvement	Number of treatments	structure	4.0	0.0	4.0
17100305	Coquille	TRUE	Upland invasive plant control	Area treated	acre	7.0	0.0	7.0
17100305	Coquille	TRUE	Voluntary riparian tree retention	Area treated	acre	6.3	0.0	6.3
17100305	Coquille	TRUE	Voluntary riparian tree retention	Length of treatment	mile	1.0	0.0	1.0
17100305	Coquille	TRUE	Wetland restoration	Area treated	acre	240.0	0.0	240.0
17100306	Sixes	TRUE	Upland invasive plant control	Area treated	acre	16.5	0.0	16.5
17100306	Sixes	TRUE	Voluntary riparian tree retention	Area treated	acre	0.7	0.0	0.7



17100306	Sixes	TRUE	Voluntary riparian tree retention	Length of treatment	mile	0.0	0.0	0.0
17100307	Upper Rogue	TRUE	Fish screening	Number of treatments	fish screen	1.0	0.0	1.0
17100307	Upper Rogue	TRUE	Riparian invasive plant control	Area treated	acre	30.1	0.0	30.1
17100307	Upper Rogue	TRUE	Riparian invasive plant control	Length of treatment	mile	2.3	0.0	2.3
17100307	Upper Rogue	TRUE	Upland erosion control	Area treated	acre	147.7	0.0	147.7
17100307	Upper Rogue	TRUE	Upland erosion control	Number of treatments	structure	11.0	0.0	11.0
17100307	Upper Rogue	TRUE	Upland vegetation planting	Area treated	acre	269.8	0.0	269.8
17100308	Middle Rogue	TRUE	Riparian invasive plant control	Area treated	acre	13.0	0.0	13.0
17100308	Middle Rogue	TRUE	Riparian invasive plant control	Length of treatment	mile	1.0	0.0	1.0
17080001	Lower Columbia-Sandy	TRUE	Riparian tree planting	Length of treatment	mile	0.1	0.0	0.1
17100309	Applegate	TRUE	Riparian tree planting	Length of treatment	mile	0.1	0.0	0.1
17100308	Middle Rogue	TRUE	Riparian vegetation planting	Area treated	acre	13.0	0.0	13.0
17100308	Middle Rogue	TRUE	Riparian vegetation planting	Length of treatment	mile	1.0	0.0	1.0
17100309	Applegate	TRUE	Fish screening	Number of treatments	fish screen	1.0	0.0	1.0
17100309	Applegate	TRUE	Instream habitat (not anchored): Boulder placement	Number of treatments	boulder	40.0	0.0	40.0
17100309	Applegate	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	key piece log	20.0	0.0	20.0
17100309	Applegate	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	non-key piece log	4.0	0.0	4.0
17100309	Applegate	TRUE	Instream habitat (not anchored): Large wood placement	Number of treatments	structure	6.0	0.0	6.0
17100309	Applegate	TRUE	Non-crossing improvement	Number of treatments	diversion dam	2.0	0.0	2.0
17100309	Applegate	TRUE	Non-crossing improvement	Number of treatments	push-up dam	1.0	0.0	1.0
17100309	Applegate	TRUE	Riparian invasive plant control	Area treated	acre	2.0	0.0	2.0
17100309	Applegate	TRUE	Riparian invasive plant control	Length of treatment	mile	0.1	0.0	0.1

17060104	Upper Grande Ronde	TRUE	Riparian tree planting	Area treated	acre	0.1	0.0	0.1
17060104	Upper Grande Ronde	TRUE	Riparian tree planting	Length of treatment	mile	0.1	0.0	0.1
17100309	Applegate	TRUE	Riparian vegetation planting	Area treated	acre	2.0	0.0	2.0
17100309	Applegate	TRUE	Riparian vegetation planting	Length of treatment	mile	0.1	0.0	0.1
17100310	Lower Rogue	TRUE	Crossing improvement	Number of treatments	ford	1.0	0.0	1.0
17100310	Lower Rogue	TRUE	Riparian invasive plant control	Area treated	acre	0.1	0.0	0.1
17100310	Lower Rogue	TRUE	Riparian invasive plant control	Length of treatment	mile	0.0	0.0	0.0
17100310	Lower Rogue	TRUE	Riparian tree planting	Area treated	acre	0.1	0.0	0.1
17100310	Lower Rogue	TRUE	Riparian tree planting	Length of treatment	mile	0.0	0.0	0.0
17100310	Lower Rogue	TRUE	Upland invasive plant control	Area treated	acre	1.3	0.0	1.3
17100311	Illinois	TRUE	Fish screening	Number of treatments	fish screen	1.0	0.0	1.0
17100311	Illinois	TRUE	Riparian invasive plant control	Area treated	acre	0.4	0.0	0.4
17100311	Illinois	TRUE	Riparian invasive plant control	Length of treatment	mile	0.0	0.0	0.0
17100311	Illinois	TRUE	Upland invasive plant control	Area treated	acre	0.3	0.0	0.3
17100312	Chetco	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	6.0	0.0	6.0
17100312	Chetco	FALSE	Riparian fencing	Area treated	acre	0.1	0.0	0.1
17100312	Chetco	FALSE	Riparian fencing	Length of treatment	mile	0.0	0.0	0.0
17100312	Chetco	FALSE	Upland invasive plant control	Area treated	acre	11.4	0.0	11.4
17120001	Harney-Malheur Lakes	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	2.0	0.0	2.0
17120001	Harney-Malheur Lakes	FALSE	Upland invasive plant control	Area treated	acre	4.1	0.0	4.1
17120001	Harney-Malheur Lakes	FALSE	Upland vegetation management	Area treated	acre	899.2	0.0	899.2
17120002	Silvies	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	2.0	0.0	2.0
17120002	Silvies	FALSE	Wetland improvement	Area treated	acre	400.0	0.0	400.0
17120005	Summer Lake	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	1.0	0.0	1.0

17120005	Summer Lake	FALSE	Upland fencing	Area treated	acre	20.0	0.0	20.0
17120005	Summer Lake	FALSE	Upland vegetation planting	Area treated	acre	5664.8	0.0	5664.8
17120006	Lake Abert	FALSE	Upland invasive plant control	Area treated	acre	360.0	0.0	360.0
17120007	Warner Lakes	FALSE	Non-crossing improvement	Number of treatments	diversion dam	1.0	0.0	1.0
18010201	Williamson	TRUE	Riparian vegetation planting	Area treated	acre	1.0	0.0	1.0
18010201	Williamson	TRUE	Riparian vegetation planting	Length of treatment	mile	0.6	0.0	0.6
18010201	Williamson	TRUE	Upland vegetation management	Area treated	acre	90.0	0.0	90.0
18010203	Upper Klamath Lake	TRUE	Channel alteration	Length of treatment	feet	11510.4	0.0	11510.4
18010203	Upper Klamath Lake	TRUE	Channel alteration	Number of treatments	main channel	1.0	0.0	1.0
18010203	Upper Klamath Lake	TRUE	Fish screening	Number of treatments	fish screen	3.0	0.0	3.0
18010203	Upper Klamath Lake	TRUE	Non-crossing improvement	Number of treatments	diversion dam	2.0	0.0	2.0
18010203	Upper Klamath Lake	TRUE	Riparian fencing	Area treated	acre	51.5	0.0	51.5
18010203	Upper Klamath Lake	TRUE	Riparian fencing	Length of treatment	mile	1.2	0.0	1.2
18010203	Upper Klamath Lake	TRUE	Riparian vegetation planting	Area treated	acre	9.0	0.0	9.0
18010203	Upper Klamath Lake	TRUE	Riparian vegetation planting	Length of treatment	mile	1.7	0.0	1.7
18010203	Upper Klamath Lake	TRUE	Upland erosion control	Area treated	acre	7.0	0.0	7.0
18010203	Upper Klamath Lake	TRUE	Upland erosion control	Number of treatments	structure	1.0	0.0	1.0
18010203	Upper Klamath Lake	TRUE	Upland tree planting	Area treated	acre	30.0	0.0	30.0
18010204	Lost	TRUE	Irrigation system improvement	Area treated	acre	50.3	0.0	50.3
18010204	Lost	TRUE	Irrigation system improvement	Length of treatment	feet	2640.0	0.0	2640.0
18010206	Upper Klamath	TRUE	Irrigation system improvement	Area treated	acre	1.0	0.0	1.0
18010206	Upper Klamath	TRUE	Irrigation system improvement	Length of treatment	feet	420.0	0.0	420.0
18020001	Goose Lake	FALSE	Off-channel livestock or wildlife watering	Number of treatments	watering location	1.0	0.0	1.0
18020001	Goose Lake	FALSE	Upland fencing	Area treated	acre	25.0	0.0	25.0
18020001	Goose Lake	FALSE	Upland invasive plant control	Area treated	acre	1017.5	0.0	1017.5
18020001	Goose Lake	FALSE	Upland vegetation management	Area treated	acre	4844.0	0.0	4844.0

## Contact

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Oregon Department of Environmental Quality

# Oregon Nonpoint Source Pollution Program Annual Report for 2022

## Appendix B: Detailed Metric Information for Action 319-2

### Actions Defined by the 2022 Nonpoint Source Management Plan:

- 319-2. Solicit and select 319 projects that support priorities.
- 319-2-M2. Annually, 100% of funded projects demonstrate progress implementing project objectives.
- 319-2-R6. Description of each open 319 project including Project Name, Agreement Number, Grant Recipient, and a project description that includes identification of the project objectives. Reported annually.
- 319-2-R7. Description 319 project activities or outputs that occurred or were reported to DEQ during the reporting period. Reported annually.

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Project Name	Agreement Number	Grant Recipient	Satisfactory Progress Determination	Project Description	319 Total Project Grant Funds	Project Activities or Outputs that Occurred During Reporting Year (2022)	Performance Report in 2022	Agreement Execution Date
Upper South Fork John Day Bioassessment	003-21	South Fork John Day Watershed Council	Yes	The purpose of the Upper South Fork John Day Bioassessment is to determine the effectiveness of the rapid riparian revegetation effort completed on the Upper South Fork John Day River, by repeating the Upper South Fork John Day Bioassessment that was previously performed in 2001, 2004, 2006, and 2017. After developing a Quality Assurance Project Plan (QAPP), temperature loggers will be deployed and macroinvertebrate sampling and analysis will occur. Once sampling has concluded a hired contractor will use the macroinvertebrate model PREDATOR to characterize the collected samples and compile results into a final report to be shared with project partners.	23969	The South Fork John Day Watershed Council successfully completed the field data collection in August and the data has been transferred to the contractors to be processed.	yes	7/16/2020
John Day River Basin Unmanned Aerial Vehicle Vegetation Monitoring	004-21	Blue Mountain Land Trust	Yes	The John Day River Basin Unmanned Aerial Vehicle Vegetation Monitoring project proposes to use unmanned aerial vehicles (UAVs) equipped with multispectral sensors to continuously monitor riparian vegetation throughout the John Day River Basin. Gilliam Soil and Water Conservation District, in partnership with Oregon State University, is developing a procedure for continuous monitoring of riparian vegetation, including a protocol for both planning the flight mission and processing images. Partners will use this protocol to gather baseline data throughout the basin on riparian vegetation cover. This data will enable partners to monitor restoration efforts, inform future restoration plans, and determine best management practices. Staff will be trained and licensed to fly UAVs in accordance with Federal Aviation Administration (FAA) licensing requirements. In conjunction with Project Partners, the UAV will be utilized for the collection of basin-wide vegetation baseline data on the sites of planned restoration projects in their focus geographies, as well as for monitoring of restoration projects after project implementation. In conjunction with Project Partners, staff will coordinate with other natural resource organizations working in the John Day Basin to employ the vegetation monitoring protocol on other restoration projects throughout the basin. Data sharing will be coordinated with Gilliam SWCD and the John Day Basin Partnership to identify areas in need of improved restoration practices. The data collected between all project partners will then be analyzed and cataloged and accessible to all project partners in a user friendly format.	26510	Blue Mountain Land Trust (BMLT) have purchased their drone and have staff currently studying to take the drone FAA testing. Project Partners made progress towards completing the goals of this Project. So far, partners North Fork John Day Watershed Council and South Fork John Day Watershed council have trained and certified staff to complete UAV flights. Sherman SWCD are licensed but have yet to purchase drone equipment. Project partners continue to participate in planning calls and work with other drone operators in the John Day Basin, and are working out a plan on how to engage more practitioners who are interested in having their restoration projects flown pre- and post-implementation.	yes	8/12/2020
Backyard Planting Program 2019	038-21	Tillamook Estuary Partnership	Yes	riparian planting	25149.28	319 funds were used for the site preparation and planting of 2 new riparian projects which included the planting of 165 native trees and shrubs and 800 willow cuttings along 264 feet of riparian areas encompassing approximately 0.2 acres. 5.6 acres of invasive vegetation was removed along 1.3 riparian miles.	yes	9/22/2020
Down and Dirty in Eastern Oregon	059-22	Malheur County Soil and Water Conservation District	Yes	The Malheur Soil and Water Conservation District will conduct water quality monitoring at 14 sites throughout the Malheur and Owyhee Basins. Installation of continuous discharge monitoring sites at 11 locations will be completed, and water quality samples will be collected by project partners. Discharge will be used to calculate pollutant loads at the monitoring sites. Data collected from this project will be analyzed and compared to previously collected data and reports. The primary objectives of this project are to collect and analyze water quality and quantity data to report progress to agricultural producers and regulatory agencies and to identify and prioritize locations for future restoration efforts.	24200	The Malheur Soil and Water Conservation District is working with a DEQ volunteer monitoring coordinator to develop a Quality Assurance Project Plan describing project area, activities, and quality control processes in place to ensure usability of data collected.	yes	5/11/2022

Project Name	Agreement Number	Grant Recipient	Satisfactory Progress Determination	Project Description	319 Total Project Grant Funds	Project Activities or Outputs that Occurred During Reporting Year (2022)	Performance Report in 2022	Agreement Execution Date
Remote Sensing & Source Water Inventory for the S. Fork Walla Walla R.	085-21	Walla Walla Basin Watershed Council	Yes	The Remote Sensing and Source Water Inventory for the South Fork Walla Walla River project will protect groundwater and essential aquatic habitat by using LiDAR technology to fill the data gap about the current status of water sources feeding the Walla Walla River. The data will be used by project partners to develop a strategy for protecting watershed functions relating to natural basalt aquifer recharge, flow, and water temperature in the upper watershed. After a Quality Assurance Project Plan is submitted and approved, all available source water data will be compiled and reviewed. After acquiring LiDAR for the Upper and Middle South Fork Walla Walla River HUC-6 units, a hydrologic map of the watershed will be developed and an inventory of potential and existing spring input locations will be completed. The last component of this project is to collect water samples for isotope and tritium analysis by USGS, once completed the findings will be summarized in a written report and community outreach will be conducted. The Upper Willow Creek Basin Best Management Practices (BMPs) Program aims to reduce heat pollution in the Upper Willow Creek watershed by implementing a cost-sharing program for private agricultural landowners to install BMPs. A major nonpoint source of water quality impairment in the Willow Creek watershed is heat input that results in high water temperatures. Temperature increases may be caused by both natural and anthropogenic events resulting in vegetation removal, low seasonal stream flows, changes in channel morphology, and alteration of the floodplain. Project goals include the reduction of instream water temperatures and agricultural nutrient inputs through the development of best management practices such as the development of riparian buffer zones and off stream stock watering areas.	17800	The Walla Walla Basin Watershed Council has collected the Lidar information, and field trainings have occurred to conduct a springs inventory in the S. Fork Walla Walla Watershed.	yes	4/22/2021
Upper Willow Creek Basin BMPs Program	086-21	Morrow Soil and Water Conservation District	Yes	The Walla Walla Basin Water Quality Education and Outreach project will support the Walla Walla Basin Watershed Foundation's goal to improve audience understanding of water quality problems in surface and ground water and how protection and restoration efforts can aid in restoring healthy hydrological and ecological systems. With a collection of lecture and hands-on educational experiences, the program reaches 600+ students and 100+ adults each year in the Umatilla and Walla Walla Basins, largely in the Milton-Freewater area, but also various other locations, including Athena and Walla Walla. Many of the educational activities address human-related stream heating associated with flow diminution and channel manipulation, including loss of riparian vegetation. Other water quality, human-caused impairments included in the 303(d) of the Clean Water Act are addressed, including sediment, nitrate, ammonia, bacteria, pesticides and others. Both surface and groundwater resources are addressed, including the interconnectedness of the systems. To achieve the educational goals of improving awareness and understanding of the related issues, over 20 lessons and activities for both youth and adults are coordinated.	14915	The Morrow SWCD successfully entered into an agreement with one landowner to complete a feeding pen relocation project. The project aims to decrease erosion and nutrient loading to Hinton Creek. The project began in late fall and was completed in December.	yes	4/29/2021
Walla Walla Basin Water Quality Education and Outreach	089-21	Walla Walla Basin Watershed Council	Yes		11990	The Walla Walla Basin Watershed Council (WWBWC) Education and Outreach program implemented the Salmon and Trout Enhancement Program (STEP) with approximately 150 5th grade students and 40 high school students. Lessons focused on water quality as central factor in supporting good habitat for endangered and protected anadromous native fish. For the 2022 school year, the WWBWC adapted its Watershed Field Day program to a partnership with the Frazier Farmstead Museum to serve approximately 150 4th grade students, 10-12 school staff and 5 high school students with a collection of environmental and cultural education. The WWBWC coordinated a community volunteer event at the Ferndale School Demonstration Restoration project, 12 community members learned about restoration of riparian habitat and water quality benefits as well as helping get area ready for Outdoor School. The WWBWC partnered with the Beaver Coalition to host a tree planting event on April 9th 2022, during which approximately 30 community members volunteered to plant both rooted and unrooted tree starts. During 2022, the Partnership for Umpqua Rivers (PUR) used 319 grant funds to collect monthly grab sample monitoring data at approximately 65 locations per month in both the North and South Umpqua watersheds. Grab sample data parameters collected at each monitoring location include temperature, conductivity, pH, dissolved oxygen, turbidity, phycocyanin, nitrate, and E. coli (at select sites based on need). 319 grant funds were used to purchase the	yes	4/26/2021
South Umpqua NPS Turbidity Assessment Phase #2 (123-20)	123-20	Partnership of Umpqua Rivers	Yes	watershed assessment	39640		yes	5/9/2020

Project Name	Agreement Number	Grant Recipient	Satisfactory Progress Determination	Project Description	319 Total Project Grant Funds	Project Activities or Outputs that Occurred During Reporting Year (2022)	Performance Report in 2022	Agreement Execution Date
						nitrate and phycocyanin probes that are now used regularly in monitoring efforts throughout the North and South Umpqua Basins.		
Siletz Watershed BMP Landowner Engagement Phase #2 (126-20), amemded Nehalem - Riparian Restoration and Water Quality Monitoring	126-20	Lincoln SWCD	Yes	Ag BMP project development; stakeholders involvement/information	23353	319 funds added to grant Agreement in subsequent grant cycle; 319 funds used in construction of an agricultural livestock heavy use area (using NRCS funds & local match)	yes	8/10/2020
	143-20	UNWC	Yes	riparian restoration, baseline monitoring	8998	No outputs for 2022. Project completed. Final report recieved 6/30/21	yes	5/19/2020
Little Butte Creek Watershed/Lower Antelope Creek	151-20	Jackson SWCD	Yes	BMP planning and implementation, Irrigation	47275	JSWCD converted 50 irrigated acres from wild flood to pivot irrigation system which eliminated tailwater runoff and reduced E. coli and temperature loading into Antelope Creek.	yes	7/16/2020
NW OR Restoration Partneship 2019	152-20	Tillamook Estuary Partnership	Yes	riparian planning	15458.58	From February 2022 through May 2022, 319 funds were used to support 2000 hours to the Oregon Youth Authority's (OYA) at-risk, incarcerated youth at TEP's nursery located on OYA property. Since February, the crew has power washed over 550 container holding boxes, thinned 1000's of seedlings, and loaded over 30,000 plants in NORP members' vehicles.	yes	7/10/2020
Upper Klamath and Lost subbasins Stewardship Agreement Planning Efforts	178-21	Klamath Basin Water Users Protection Association	Yes	The Klamath Basin Water Users Protection Association (KWUA) will work together with irrigation districts, The Bureau of Reclamation, U.S. Fish and Wildlife Service, DEQ, and NCWQCB to draft the Upper Klamath and Lost River Subbasins TMDL Stewardship Plan that will be reviewed and adopted by the stakeholders. The Stewardship Work Group will create a comprehensive implementation plan that will address the Upper Klamath and Lost River Subbasins Nutrient and Temperature TMDLs. KWUA will coordinate planning sessions twice per month for the Upper Klamath and Lost River Subbasins TMDL Stewardship Plan and ensure the representation of interested stakeholders. KWUA will communicate efforts to the various participants and act as a liaison between districts and other entities interested in being part of the implementation plan. KWUA will work closely with DEQ and NCWQCB during the planning process and communicate information between parties in between quarterly planning sessions.	29470	The Klamath Water Users Protective Association has primarily focused on coordinating and consulting with Oregon Department of Environmental Quality (ODEQ) and the California North Coast Water Quality Control Board (NCWQCB) on behalf of the stakeholders regarding development of the Implementation Plan.	yes	6/17/2021
2019 STREAM Enhancement and Restoration	180-20	Tillamook SWCD	Yes	riparian planting	31379	No outputs for 2022.	yes	8/12/2020
Johnson Creek--Gresham Riparian Reforestation	22-23	Johnson Creek WSC	Yes	riparian restoration	20950	We have done site preparation weed treatments throughout the project area, and the initial planting was completed this winter; crews should be out any day for a first round of post-planting maintenance, if they haven't done it already. We will continue maintenance weed control through the growing season, and will do infill planting as needed in the fall/winter.	yes	10/1/2021



Project Name	Agreement Number	Grant Recipient	Satisfactory Progress Determination	Project Description	319 Total Project Grant Funds	Project Activities or Outputs that Occurred During Reporting Year (2022)	Performance Report in 2022	Agreement Execution Date
Walla Walla River Forks Floodplain Reconnection and In-stream Enhancement Implementation	55-22	Confederated Tribes of the Umatilla Indian Reservation	Yes	The Walla Walla River Forks project, located at the confluence of the North and South Fork Walla Walla Rivers, involves reactivating floodplain, improving fish passage and in-stream habitat complexity, and restoring historic river channel. Implementation of this project will improve habitat for native fish species such as bull trout ( <i>Salvelinus confluentus</i> ), Mid-Columbia steelhead ( <i>Oncorhynchus mykiss</i> ), Mid-Columbia spring Chinook ( <i>O. tshawytscha</i> ), and interior redband/rainbow trout ( <i>O. mykiss</i> ), while benefiting natural channel morphology and in-stream processes. This restoration effort aims to improve water quality and quantity, geomorphology, hydrological connectivity, riparian vegetation, and aquatic biota. This project supports the proposed management strategies outlined in the Walla Walla Subbasin Stream Temperature Total Maximum Daily Load and Water Quality Management Plan (ODEQ, 2005). Specifically, the project will increase river shading, floodplain area, sinuosity, and hyporheic exchange. Implementation activities include riparian buffer protection and enhancement, instream flow augmentation, erosion control, large wood placement, and channel restoration. The primary project objective is to enhance habitat for native fish and wildlife by restoring ecosystem function throughout the site.	62651	The Confederated Tribes of the Umatilla Indian Reservation have removed 850 feet of existing levee to improve connectivity with relic side channel and floodplain habitat, enhanced 2250 feet of off-channel habitat and 4.9 acres of floodplain habitat, installed 94 large wood habitat structures, made improvements on irrigation diversions, and enhanced 2 acres of riparian habitat by installing native plants and native seed mixes.	yes	3/23/2022
Tillamook SWCD 2018 Stream Enhancement & Restoration	56-20	Tillamook Co SWCD	Yes	riparian restoration, fencing	11000	No funds were expended on this grant. The funds were to be "reprogrammed"	yes	12/20/2019
Northwest Oregon Restoration Partnership 2021	72-23	Tillamook Estuary Partnership	Yes	riparian planning	37388	No work reported but project is open and on track.	yes	2/1/2023
Reforestation of Humbug Creek on the ODFW Wildlife Refuge	73-23	Upper Nehalem WSC	Yes	riparian reforestation	12512	No work reported but project is open and on track.	yes	2/28/2023
Nestucca, Neskowin and Sand Lake Basin Riparian Improvement Project	80-23	Nestucca Neskowin WSC	Yes	riparian planting	16000	No work reported but project is open and on track.	yes	2/23/2023
Backyard Planting Program 2020	90-21	Tillamook Estuary Partnership	Yes	Site specific riparian planning	28429	319 funds were used in 2022 to support 130 hours of project management (which includes establishing and meeting with program participants, site prep, partner coordination) as well as 5 hours of plant establishment time and 12 hours of project monitoring.	yes	5/25/2021
Northwest Oregon Restoration Partnership 2020	91-21	Tillamook Estuary Partnership.	Yes	Preparing plant materials for riparian restoration	14928	319 funds were used to support >2000 employment hours to the Oregon Youth Authority's (OYA) at-risk, incarcerated youth at TEP's nursery located on OYA property. The OYA nursery crew sowed 35,000 seed tubes and transplanted over 37,000 seedlings into gallon pots that will be grown at the nursery for another year, or two, then will be planted into restoration projects all over the NWOR region.	yes	5/24/2021
Nestucca, Neskowin and Sand Lake Basin Riparian Improvement Project	92-21	Nestucca Neskowin WSC	Yes	Identification new project areas for riparian restoration.	18179	No work reported but project is still open and on track.	yes	5/24/2021

Project Name	Agreement Number	Grant Recipient	Satisfactory Progress Determination	Project Description	319 Total Project Grant Funds	Project Activities or Outputs that Occurred During Reporting Year (2022)	Performance Report in 2022	Agreement Execution Date
Antelope and Little Butte Creek WQ Improvement Project Bacteria, continuous temp. and pesticide monitoring in the Long Tom WS (094-21)	93-21	Jackson Co SWCD	Yes	BMP implementation	43502	JSWCD converted 129 irrigated acres from wild flood to pivot irrigation system which eliminated tailwater runoff and reduced E. coli and temperature loading into Antelope Creek.	yes	9/3/2020
	94-21	Long Tom WSC	Yes	monitoring	24943	The Long Tom Watershed Council has provided continued monitoring of E Coli and temperature for Bear and Ferguson Creeks to inform future targeted outreach with partner agencies to landowners in the area and support riparian enhancement and livestock management projects.	yes	5/26/2021
				Technical assistance modeling / statewide monitoring		The overarching goal of the full project, which was only partially funded, was to test the capability to estimate shade on channels and other waterbodies via remote sensing, both with and without lidar data availability. The test results would then be used to determine a viable strategy for statewide monitoring of riparian vegetation condition, focusing on developing a repeatable, cost-effective method for assessment of progress toward achieving TMDL temperature goals. A sub-goal of the first phase of the project was to develop a simple riparian vegetation classification for use in an operational system for state and transition modeling in riparian areas. INR and Oregon DEQ mutually decided this goal was better postponed until a later phase of the project, and focused attention on developing the sample design and field protocol for ground-truth data to support the main goal. Goals that had been set for the second phase, which was not funded, included refining methods of optical-based mapping of canopy cover and vegetation height, and testing methods for mapping change in shade, cover or height. These goals were not attempted as the second phase was not funded; however, we have produced preliminary mapping results for both lidar-based and optical imagery-based scenarios.		
Monitoring riparian conditions via Remote Sensing to support Statewide implementation of WBP	95-21	PSU, Institute of Natural Resources	Yes		42796		yes	2/5/2021

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Oregon Department of Environmental Quality

# Oregon Nonpoint Source Pollution Program Annual Report for 2022

## Appendix C: Detailed Metric Information for Action CWSRF-1

### Actions Defined by the 2022 Nonpoint Source Management Plan:

- CWSRF-1. Fund nonpoint pollution control projects with Oregon CWSRF
- CWSRF-1-M1. Continue to provide CWSRF loans for nonpoint source pollution control projects in Oregon annually over the next five years.
- CWSRF-1-R5. Description of each active CWSRF nonpoint source project including Project Name, Agreement or Loan Number, Recipient, and a project description that includes identification of the project objectives.
- CWSRF-1-R6. Description of project outputs or accomplishments that occurred or were reported to DEQ during the reporting period.

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Admin Basin	Project Name	Borrower	Loan Number	Loan Amount	Brief project description and objectives	Status
Clackamas	Three Creeks Floodplain Enhancement (In progress)	Water Environment Services	R95031	\$1,450,000	The Three Creeks Floodplain Enhancement project would modify the existing outlet control structure on the detention facility to enhance floodplain processes, enhance the existing natural floodplain area, construct wetlands and terraces to increase flood storage, provide sediment filtration to improve water quality, fish and wildlife habitat, restore wetlands and natural floodplain function.	Not Yet Complete: In Design- Initial Scoping and Design report Oct 2022. Complete design and begin construction end of 2023.
Clackamas	Local Community Loan Program (complete)	Clackamas Soil and Water Conservation District	R22406	\$242,244	Local community loan program to provide loans to residents for septic tank repair and replacement, which will address contaminants including nitrates and bacteria in the Clackamas River basin and improve water quality.	Complete, balance of funds added to R22407
Clackamas	Local Community Loan Program (In progress)	Clackamas Soil and Water Conservation District	R22407	\$549,756	Local community loan program to provide loans to residents for septic tank repair and replacement, which will address contaminants including nitrates and bacteria in the Clackamas River basin and improve water quality.	Not Yet Complete. Implementation ongoing; anticipated end date end of 2024.
Deschutes	Smith Rock and Kingway Irrigation District Piping Project (complete)	Central Oregon Irrigation District	R21644	\$1,772,615	Pipe 4.8 miles of the 26 mile Pilot Butte Canal and 2.9 miles of laterals of 52 miles. Goals of the project include: habitat enhancement, water savings, reduce risks to public safety from open irrigation canals, support existing agricultural uses through water supply reliability, improve COID financial stability through reduced operation and maintenance costs, conserve energy and reduce on farm costs by reducing need for on-farm pumping	Complete
Deschutes	Watson and McKenzie Main Canal Pipeline Project (complete)	Three Sisters Irrigation District	R91414	\$1,080,500	Replacement of existing open irrigation pipe with approximately 28,000 feet of buried HDPE pipe to improve water efficiency, protect water quality from exposure to contaminants in the Deschutes River basin.	Complete. Moving into repayment in next 6 months
Deschutes	Mini Hydro-electric Plant (complete)	Three Sisters Irrigation District	R91415	\$800,000	Micro hydro project to capture pressure energy in the south pipe inflow to Watson Reservoir. The project will increase energy efficiency, include stream restoration, and habitat protection. One goal is to show farmers potential for net meter hydro technologies that can be used on farms.	Complete. Moving into performance period and repayment in next 6-12 months
Deschutes	Ochoco Irrigation District Modernization Project (In progress)	Ochoco Irrigation District	R70100	\$680,000	The project includes converting existing canals and laterals to pipes, installing new pump stations, raising canal banks and installing a new lateral line. The combined projects components will reduce irrigation system spills, which contribute to water quality impairments, mitigate safety risks due to natural disasters. The project will improve water quality for temperature, dissolved oxygen, pH, bacteria, nutrients, and pesticides through increased flow in McKay Creek and Crooked River (Grimes Flat laterals).	Not Yet Complete: portion using CWSRF funds has been delayed until 2024-2025, working on State Environmental Review Process
Deschutes	Lone Pine Irrigation District Modernization Project – Design (in progress)	Lone Pine Irrigation District	R58710	\$250,000	The project will convert the current system of open canals into a fully piped system using HDPE and steel pipe. The project will also construct a new pipeline crossing of the Crooked River, using a siphon placed under the river to deliver pressurized water to patrons on the other side of the river. The project will improve water quality for temperature, dissolved oxygen, and pH in the Deschutes River basin.	Not Yet Complete: in construction (less than 50%) expected completion ~spring 2024
Deschutes	Lateral 43 and Juniper Butte Piping Project (new, in progress)	North Unit Irrigation District	R69600	\$200,000	The project including piping 8.2 miles of leaky canal laterals and serving over 9,800 acres of agricultural land. The project will improve water quality in the lower Crooked River, Lake Billy Chinook and the lower Deschutes River by removing canal seepage and minimizing/eliminating return flow from agricultural lands. Piping of the laterals will also encourage on-farm efficiency by providing pressurized water, which enables the switch from furrow (flood) irrigation to sprinkler irrigation, reducing excessive seepage and agricultural runoff from fields.	Not Yet Complete: design in progress, estimated project completion 2028
Hood	Kingsley Reservoir Expansion Phase 3 (complete)	Farmers Irrigation District	R32246	\$2,777,000	The project includes expansion of the Kingsley Reservoir: replacement of the reservoir outlet pipe and valve to meet modern safety standards; construction of a saddle dam on the south end; and construction of a wetland complex. The expanded reservoir provides a safe and reliable source of irrigation water for farmland, protected in-stream flow in Green Point Creek and Ditch Creek, drought resistance and protection from issues around climate change, as well as environmental and recreational benefits to the Hood River basin.	Completed in 2021
Hood	Reservoir Enhancement Project: Outlet Replacement and Dam Raise (In progress)	Farmers Irrigation District	R32245	\$3,071,574	Design and construction of water pipe to replace open ditches and canals to improve water efficiency and water quality in the Hood River basin.	Not Yet Complete. Construction ongoing, expected completion end of 2024
Hood	Dee Irrigation District System Pressurization Project (Completed, loan amended to \$777,349 to close out)	Dee Irrigation District	R26900	\$777,349	This project will replace the old pipe with a new fully pressurized system, thereby eliminating the overflows and individual pumps. The project will improve irrigation water use efficiency, reduce electricity consumption, and improve water quality in the Hood River basin.	Complete
Hood	Mosier Deep Well #2 Project (complete)	Wasco County Soil and Water Conservation District	R94965	\$450,000	The project includes construction of two deep irrigation supply wells. The project will restore local aquifers increasing reliability of domestic water sources and a resulting increase in stream flows in Mosier, Dry and Rock Creeks, improving water quality for temperature and dissolved oxygen as a result of replenished upper aquifers.	Complete. Moving into performance period and repayment in next 6-12 months

Admin Basin	Project Name	Borrower	Loan Number	Loan Amount	Brief project description and objectives	Status
Rogue	Riparian Restoration in Bear Creek Watershed (new loan, In progress)	City of Ashland	R11754	\$4,829,000	The project involves riparian restoration with native plantings on lots owned by City of Ashland along Bear Creek. The project is being conducted in phases with individual smaller loans "bundled" under one loan over time.	Not Yet Complete. Planting of native species for riparian restoration. New sites being established as they are available. Each project side established will complete within 5 years.
Rogue	Joint System Canal Piping Project (new, in progress)	Rogue River Valley Irrigation District & Medford Irrigation District	R78600	\$1,500,000	The project includes design and construction of piping up to 4.4 miles of canal and diversions, siphons replacement, water diversion structure and fish passage improvements in the Little Butte Creek watershed.	Not Yet Complete. Signed a design loan. No other progress. Expect construction loan in 2024.
South Coast	Front Street Green Streets (In progress)	City of Coos Bay	R24001	\$1,100,000	The project involves remediation of a clean up site and stormwater management improvements to improve water quality and site restoration for downtown revitalization in Coos Bay. Remediation activities will treat contamination, mitigate risk of groundwater and surface water contamination, stabilize the site, and allow further site improvements, which will include water quality benefits from stormwater treatment.	Not Yet Complete. Construction ongoing, expected completion end of 2023.
South Coast	S. 4th Street Green Parking Lot (In progress)	City of Coos Bay	R24003	\$100,000	This project is part of a broader "green streets" initiative by the City of Coos Bay. The 4th Street Green Parking Lot project will involve incorporating green infrastructure at the parking site to improve stormwater treatment for water quality benefits and downtown revitalization in Coos Bay.	Not Yet Complete. Design and Construction on hold until other NPS projects are complete.
South Coast	2nd Street Green Street and Parking Lots and Brownfields Remediation and Land Revitalization (In progress)	City of Coos Bay	R24005	\$908,500	This project involves remediation of the Englewood School Englewood School and green streets to improve stormwater management in Coos Bay. The project will mitigate risk of contamination and implement green stormwater management to mitigate contaminated runoff into waterways and improve water quality through stormwater treatment.	Not Yet Complete. Construction ongoing, expected completion end of 2023.

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